THE RELATIONSHIP OF STUDENT INVOLVEMENT IN POLITICAL ORGANIZATIONS TO SELF-REPORTED CAPACITIES FOR SOCIALLY RESPONSIBLE LEADERSHIP

BY

MELANIE BETH HOGENDORP

DISSERTATION

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Doctoral Committee:

Assistant Professor Timothy Reese Cain, Chair and Director of Research
Regent Professor and President Emeritus Stanley Ikenberry
Professor Emeritus Jane Loeb
Assistant Professor David M. Rosch

ABSTRACT

This research investigated the relationship between college students' political involvement and their capacities for socially responsible leadership, including which student characteristics, precollege experiences, and collegiate experiences contributed to these capacities. Political involvement was defined as participation in co-curricular, campus-based student organizations that were political or advocacy in nature as self-reported on the 2009 Multi-Institutional Study of Leadership Student Survey (MSL-SS). Socially responsible leadership was defined as a purposeful, collaborative, group process that ultimately is concerned with fostering social responsibility and positive social change for the common good, measured by students' self-reported scores on the Socially Responsible Leadership scale – Revised 3 (SRLS-R3) (Dugan & Komives, 2009; Tyree, 1998) on the MSL-SS. The SRLS-R3 measures were based on the social change model of leadership development (SCM) (Higher Education Research Institute, 1996), which is one of the most well known student leadership models, in part for its broad applicability to student populations, recognition of social responsibility as an essential educational outcome, and grounding in theoretical measures of postindustrial notions of leadership.

The study employed a cross-sectional, quantitative research design based upon secondary analysis of data collected as part of the Multi-Institutional Study of Leadership (MSL), a national project examining the influences of higher education on leadership development of college students. A sample of 96,257 college students were sorted into four subgroups based on students' self-reported involvement in political organizations, non-political organizations, both political/non-political organizations, and no student organizations (i.e., non-involved). Analysis of variance and multivariate analysis of

variance were employed to compare differences across the four student subgroups based on students' self-reported demographic characteristics, precollege experiences, and collegiate experiences. Using an adapted version of A. W. Astin's (1991) I-E-O college impact model, data were analyzed further through hierarchical multiple regression to identify the degree to which these variables contributed to leadership outcomes.

Results indicated that the regression equation explained 36% of the variance in respondents' scores on the SRLS-R3. Findings suggest that students' involvement, including in political organizations, is important for fostering students' leadership development, as defined by the SCM; however, students gained the most from a varied set of co-curricular involvement experiences. Although precollege experiences and precollege measures of the social change values predicted the most variance in leadership outcomes, other college experiences, including frequency of co-curricular involvement, frequency of holding positional leadership roles, and frequency of participation in leadership training and education programs, also related positively to students' leadership development. Additionally, evidence from the data suggests that political involvement and leadership development differ among various groups of students, particularly among female students and students of color. Findings support a growing body of research that explores how different types of co-curricular involvement could influence leadership development and how the leadership process differs among various groups of students. Numerous implications arose from this research for college researchers and practitioners. This research reinforces the historic and important role of colleges and universities in educating a socially responsible and engaged citizenry, which is at the core of higher education's civic and public mission.

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CHAPTER ONE

Statement of Problem

Colleges and universities have long held a central role in shaping the quality of leadership in the United States. Since the inception of colonial colleges, the development of future leaders has been a key part of their mission (Benson, Harkavy, & Hartley, 2005; Rudolph, 1990; Thelin, 2004), and this remains an important institutional goal today. College and university mission statements and catalogs are replete with statements related to the advancement of student leadership development (A. W. Astin & Astin, 2000; Boatman, 1999; Council for the Advancement of Standards in Higher Education [CAS], 2004; Faris & Outcalt, 2001; VanDerLinden, 2006). Students' capacity for socially responsible leadership is considered an essential learning outcome of a college education, and according to the Association of American Colleges and Universities [AACU] (2007), is necessary for meeting the demands and challenges of the 21st century. In part to that end, a proliferation of curricular and co-curricular programs on college and university campuses has occurred in recent decades (A. W. Astin & Astin, 2000; CAS, 2004; Dalton & Crosby, 2008b; Outcalt, Faris, & McMahon, 2001).

A major shift in the leadership field occurred during this time, changing the conceptualization of leadership shifted from being leader-centered and hierarchical with an emphasis on power over followers, to one that is process-centered, collective, and non-hierarchical focused on relationships and mutual influence (Kezar, Carducci, & Contreras-McGavin, 2006). While many theories of leadership still exist and are applied in a wide variety of contexts, emerging are models of leadership that reflect the needs of modern society that require a collaborative and collective approach to leadership. Such an

approach demands "collective action grounded in the shared values of people who work together to effect positive change" (Higher Education Research Institute [HERI], 1996, p. 16). In a less hierarchical and increasingly complex and connected world, leaders must be called upon to do more than influence. They must utilize the talents of all people involved in a group or organization in order to lead positive change that reflects the shared purposes of everyone involved.

Against this backdrop is a movement among colleges and universities to return to their original civic mission by purposefully developing socially responsible leaders (Colby et al., 2003, 2007; Checkoway, 2001; Dugan & Komives, 2007; Hollander & Hartley, 2000; Jacoby & Associates, 2009; Kezar, 2005; Kezar et al., 2006; The National Task Force on Civic Learning and Democratic Engagement, 2012). Specifically, increasing political involvement has emerged as a central concern among colleges and universities, particularly pertaining to the need for institutions to prepare students with the leadership skills, behaviors, and attitudes so that effective leadership and democracy will remain viable in American society (AACU, 2007; Colby, Beaumont, Ehrlich, & Corngold, 2007; Colby, Ehrlich, Beaumont, & Stephens, 2003; Ehrlich, 2000; Jacoby, 2006; Levine, 2007; Ong, 2008; The National Task Force on Civic Learning and Democratic Engagement, 2012). This movement began in response to declines in student political involvement since the 1990s, which have been widely documented (Ehrlich, 1999; Eisenhower Leadership Group, 1996; Hollander & Hartley, 2000; Hollister, Wilson, & Levine, 2008; Levine, 2007; Levine & Cureton, 1998; Longo & Meyer, 2006; Loeb, 1999; Morse, 1989; National Commission on Civic Renewal, 1998; Putnam, 2000). Yet, concurrent with this decline has been a rapid increase in volunteering, especially

among college students (Colby et al., 2003; Cone, Cooper, & Hollander, 2001; Dalton & Crosby, 2008a; Ehrlich, 2000; Gibson, 2001; Longo & Meyer, 2006). While increased popularity of volunteering indicate a generation of students who want to serve, there is concern that young people are abdicating political participation and turning to community service "as a way to avoid the confrontational world of politics" (Longo, 2004, p. 61), thus threatening the fundamental ideals of democracy.

In January 2012, college educators convened in Washington, DC, as part of the National Task Force on Civic Learning and Democratic Engagement, calling on the nation's higher education institutions to act on their long-standing civic mission to educate students for informed, engaged citizenship. According to the National Task Force on Civic Learning and Democratic Engagement (2012), students' development of social responsibility is an educational outcome essential for meeting the demands and challenges of the 21st century. They argue that higher education institutions are not doing enough to foster students' social responsibility, calling for institutions to go beyond transmission of facts and knowledge by encouraging students' political involvement outside the classroom.

Of greater significance is the need for leadership development and the potential that political involvement can foster it. According to scholars (A. W. Astin & Astin, 2000), the most serious problems plaguing American society, such as economic inequality, racial injustice, and educational disparities are problems of leadership, and a lack of an engaged citizenry without social responsibility for the common good, "may cripple our capacity to deal constructively with [these and] most of the other problems" (p. 2). Therefore, the critical challenge for institutions of higher education is to empower

students and teach them the skills that will enable them to become active agents of social change (A. W. Astin & Astin, 2000; Gammon, 2000; HERI, 1996; Kezar et al., 2006; Komives, Lucas, & McMahon, 2007; Komives, Wagner, & Associates, 2009; Longo & Shaffer, 2009; Musil, 2003; Zimmerman-Oster & Burkhardt, 2000). Institutions must foster students' socially responsible leadership development because students are "those who have the greatest potential to shape the nation's future" (Zimmerman-Oster & Burkhardt, 2000, p. 24). Without intentional, systematic, and collective efforts by colleges and universities to foster political involvement in their students, experts predict a slow and steady decline in voting rates and participation in campaigns and elections; further erosion of attention to and interest in public affairs, politics, and government; and increasing reliance on private and nonprofit sectors to provide solutions to public matters (A. W. Astin & Astin, 2000; Colby et al., 2003, 2007; Dalton & Crosby, 2008a, 2008b; Levine, 2007; Zukin, Keeter, Andolina, Jenkins, & Delli Carpini, 2006). King (1997) asserts, "Helping students develop the integrity and strength of character that prepare them for leadership may be one the most challenging–and important–goals of higher education" (p. 87). Because the strength and vitality of democracy depends on an active citizenry, educating college students for leadership and political involvement is critical.

As leadership education has become increasingly prominent nationally and globally (AACU, 2007; A. W. Astin, 1993; A. W. Astin & Astin, 2000; Boatman, 1999; CAS, 2004; Haber & Komives, 2009; Jacoby & Associates, 2009; Kezar et al., 2006; American College Personnel Association & National Association of Student Personnel Administrators [ACPA & NASPA], 2004; Pascarella & Terenzini, 2005; Zimmerman-Oster & Burkhardt, 1999), scholarly research examined the relationship between the

collegiate environment and student leadership development outcomes (A. W. Astin, 1993; Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001; Kezar & Moriarty, 2000; Kezar et al., 2006; Pascarella & Terenzini, 2005; Smart, Ethington, Riggs, & Thompson, 2002; Zimmerman-Oster & Burkhardt, 1999). Research indicates that students can and do increase their leadership skills during the college years, and that the increase can be attributed in part to experiences within the college environment (A. W. Astin, 1993; Komives et al., 2007; Pascarella & Terenzini, 2005). Studies have linked leadership development programs with a variety of positive educational outcomes, including civic responsibility, self-efficacy, character development, academic performance, multicultural awareness, understanding of leadership theory, and personal and societal awareness. Much of this research was informed by the theory of student involvement that posits that involvement in the college experience impacts students' learning and development (A. W. Astin, 1975, 1977, 1984, 1999; Kuh, 1993, 1995). In other words, the amount of time and energy students put into their involvement, such as participating in student organizations, is related to their educational and personal development.

A growing body of research explores how different types of co-curricular involvement could influence leadership development. A. W. Astin and H. S. Astin (2000) explain, "Co-curricular experiences not only support and augment the students' formal classroom and curricular experience, but can also create powerful learning opportunities for leadership development though collaborative group projects that serve the institution or the community" (p. 3). For instance, being involved in student organizations, engaging in community service, being involved in fraternities and sororities, participating in service-learning, holding formal leadership positions, and participating in leadership

education and training programs have been shown to positively impact students' leadership development (A. W. Astin & Astin, 2000; Dugan, 2008a; Dugan & Komives, 2007; Haber & Komives, 2009; Rosch, 2007). Further research shows that type of involvement has differential influences on development based on student background (Arminio et al., 2000; Harper & Quaye, 2007; Kezar and Moriarty, 2000; Renn & Bilodeau, 2005; Rosch, 2007). In one study, men reported higher self-perceptions of leadership ability and leadership-related skills than women students (Kezar & Moriarty, 2000). Involvement in positional leadership roles (i.e., election to a particular office) was a significant predictor of leadership ability for African American women, White women, and White men, but not for African American men. Positional leadership also was a significant predictor of leadership-related skills for White men, but not for White women, African American women, nor African American men. Other studies found mixed and inconclusive results, thus suggesting the need for further research on students' background characteristics and leadership development.

One crucial type of co-curricular involvement is participation in student groups or organizations. Estimates indicate that more than 50% of college students participate in some type of co-curricular group experience before they graduate (National Survey of Student Engagement [NSSE], 2006). In fact, research shows that peers are the most powerful source of influence on students' cognitive and affective development (A. W. Astin, 1993; Newcomb, 1962; Pascarella & Terenzini, 2005), affecting "virtually all aspects of the student's educational and personal development" (A. W. Astin, 1999, p. 590), and reflecting that student co-curricular group experiences play a major role in advancing critical educational outcomes such as leadership development (Chowdhry,

2010; Cress et al., 2001; Dugan, 2008a, 2008b; Kezar & Moriarty, 2000; Page, 2010; Shalka, 2008; Smart et al., 2002; Zimmerman-Oster & Burkhardt, 1999). Given the number of student groups or organizations on most college and university campuses, students are afforded numerous and rich opportunities to engage with their peers and apply their knowledge in practical settings (A. W. Astin & Astin, 2000; Coplin & Rosch, 2007; Jacoby, 2006). As Gerhardt (2008) noted, "It is through involvement in various student groups… that many students develop hands-on leadership skills" (p. 1). Student organizations are akin to a "learning laboratory" (Coplin & Rosch, 2007, p. A36) where students can hone their leadership skills and develop real world learning beyond what is taught in the classroom.

Yet, one key type of involvement that draws across these areas and has the potential for being a "powerful platform" (Dugan, 2008a, p. 16) for developing college students' capacity for leadership – participation in student political organizations – has been insufficiently studied. Indeed numerous scholars (Chowdhry, 2010; Dugan & Komives, 2007, 2010; Haber, 2006; Page, 2010) have specifically called for investigations into students' co-curricular involvement in political organizations and their capacities for socially responsible leadership. Yet, despite the evidence indicating positive contributions to leadership development through participation in community service, activism efforts, fraternities and sororities, service-learning, and leadership education and training programs (Bonnet, 2008; Chowdhry, 2010; Dugan, 2008a, 2008b; Dugan & Komives, 2007; Gasiorski, 2009; Gerhardt, 2008; Haber, 2006; Haber & Komives, 2009; Page, 2010; Rosch, 2007; Shalka, 2008; Smist, 2006), little is known about the relationship between political involvement and leadership development.

Further, inconsistent definitions in the literature among political involvement, civic engagement, community service, and activism have made it difficult to distinguish which outcomes results from political involvement and those that may result from other activities (Brady, 1995; Chambers & Phelps, 1993; Chowdhry, 2010; Colby et al., 2003; 2007; Komives et al., 2009; Long, 2002; Longo, 2004; Page, 2010; Verba & Nie, 1972; Zukin et al., 2006). Despite some similarities among various student activities, the settings, purposes, and goals of these activities can greatly differ. Further, community service, even when linked with the curriculum in the form of service-learning, does not guarantee students' active involvement in the political process (Colby et al., 2003; Dalton & Crosby, 2008a; Galston, 2001, The National Task Force on Civic Learning and Democratic Engagement, 2012). In order to draw the most precise inferences about the relationship of political involvement and leadership development, research that investigates only organizations described explicitly as political or advocacy in nature apart from the other involvement types is warranted.

Statement of Purpose and Objectives

The purpose of this study was to examine the relationship between college students' political involvement and their capacities for socially responsible leadership. It aimed to contribute to the literature by providing better understanding regarding whether students' political involvement is associated with higher scores on measures of socially responsible leadership, and whether students' demographic characteristics, precollege experiences, and collegiate experiences relate to their political involvement and socially responsible leadership development during college.

The purpose of the study can be broken down further into three main objectives: (a) to provide a portrait of college students who are politically involved students based on their demographic characteristics, precollege experiences, and collegiate experiences, and to examine whether they share these same characteristics as students who are involved in non-political organizations, both political and non-political organizations, and no organizations (i.e., not involved); (b) to investigate whether political involvement relates to higher capacities of socially responsible leadership development during college; (c) to explore whether students' political involvement will significantly predict students' scores on the socially responsible leadership scale, after controlling for their demographic characteristics, precollege experiences, and collegiate experiences, i.e., to identify the key predictors in leadership development for politically involved students.

Research Questions

The present study addressed the following research questions:

1. Do politically involved students differ from students involved in non-political organizations, involved in both political and non-political organizations, and not involved in any organizations, in terms of demographic characteristics, precollege experiences, capacities for socially responsible leadership prior to entering college, and collegiate experiences?
2. Do politically involved students differ from students involved in non-political organizations, involved in both political and non-political organizations, and not involved in any organizations, in terms of their

reported levels of socially responsible leadership development capacity, as measured by the Socially Responsible Leadership scale?

3. How much variance in socially responsible leadership development is explained by students' political involvement and other collegiate experiences, after controlling for students' demographic characteristics, precollege experiences, and capacities for socially responsible leadership prior to entering college? Which of these characteristics and experiences best predict socially responsible leadership development?

Summary of Research Design and Methodology

Investigation of these research questions was based on secondary analysis of data collected as part of the 2009 Multi-Institutional Study of Leadership (MSL). Began in 2006, the MSL is one of the largest studies of college student leadership to date (Center for Student Studies, n.d.). Coordinated in partnership with the National Clearinghouse for Leadership Programs and directed by researchers at the University of Maryland College Park, the MSL conducted its second national study in 2009 with a sample of more than 115,000 undergraduate students at 101 institutions. This dataset was selected for the current study because it contains the most recent data available, employing a large, multi-institutional sample of self-reported data from undergraduate students and providing a rich and timely data source on outcomes associated with student leadership development. The dataset also provided a breadth of data across a variety of variables, including students' demographic and academic background characteristics, precollege experiences, and college involvement. It also contained theoretically-derived measures of leadership development based on the social change model of leadership development (SCM) (HERI,

1996), operationalized using the Socially Responsible Leadership scale – Revised Version 3 (SRLS-R3) (Dugan & Komives, 2009; Tyree, 1998). The scale has been tested across multiple studies, consistently yielding high levels of internal reliability (as reported in Dugan & Komives, 2009).

The SCM was the theoretical framework utilized in this study. Designed specifically to address the leadership development needs of college students, it is one of the most well known student leadership models (Dugan & Komives, 2007, 2010; Kezar et al., 2006; Komives et al., 2009). The SCM reflects a postindustrial view of leadership, suggesting that leadership is a group process rather than positional; is purposeful, non-hierarchical, and collaborative; and ultimately is concerned with contributing to society by making the world a better place for self and others (A. W. Astin & Astin, 2000; HERI, 1996; Komives et al., 2009). The central principles associated with the SCM involve social responsibility and positive social change for the common good, defined as acting toward the betterment of others, community, and society by creating greater equity and promoting the values of inclusion, social justice, and compassion. The model is comprised of eight domains or values that together develop one's leadership capacity for social change (i.e., citizenship, collaboration, common purpose, controversy with civility, consciousness of self, congruence, commitment, and change). These values are organized under three components of leadership development, aimed at enhancing one's level of self-awareness (individual values), ability to work with others (group values), and capacity to affect change (society or community values). When individuals develop capacities in all three areas, positive social change for the common good is most likely to occur. Recognizing the need for both individual development and a process that promotes

change, the SCM provides a framework for leadership education programs that can foster leadership development.

The study employed a cross-sectional, quantitative research design with a conceptual framework based on a modified version of A. W. Astin's (1991) inputs-environments-outcomes (I-E-O) college impact model, consistent with past studies that utilized MSL data to examine student leadership outcomes (Chowdhry, 2010; Dugan, 2006a, 2006b, 2008a; Dugan & Komives, 2007; Fincher, 2008; Hershey, 2007; Shalka, 2008; Slife, 2007; Smist, 2006; Wilson, 2009). Applying the I-E-O model to the current study, input measures were the covariates or control variables in the study, including students' demographic characteristics (e.g., gender, racial/ethnic background, and class standing), precollege experiences (e.g., precollege involvement in clubs and service, precollege positional leadership, and precollege leadership training), and precollege measures of the social change values as measured by the Socially Responsible Leadership scale quasi-pretest (pre-SRLS). Environment measures were the independent variables, including students' current experiences during college (e.g., collegiate student organization involvement, collegiate positional leadership, and collegiate leadership training). Outcome measures were the dependent variables, including students' scores on the Socially Responsible Leadership scale (SRLS-R3). Data were analyzed to identify the extent to which of these variables contributed to leadership outcomes. Multiple statistical procedures were employed including descriptive statistics, analysis of variance, multivariate analysis of variance, correlation analysis, and hierarchical multiple regression. These variables and statistical procedures are explained in detail in forthcoming chapters.

Definition of Terms

Through examining literature and research on college students' development of leadership outcomes, definitions of key terms were adopted for use in this study. Co-curricular involvement is a broad term that encompasses many forms of involvement (A. W. Astin, 1993; Pascarella & Terenzini, 2005). Within the context of this study, co-curricular involvement was defined as a form of involvement that occurs outside of the classroom, particularly organized involvement in on-campus, student-based groups, clubs, or organizations (A. W. Astin, 1993; Kuh, 1993, 1995; Pascarella & Terenzini, 2005). The term co-curricular reflects a "cooperative rather than a supplementary form of activity that includes organized involvement in campus" (Haber & Komives, 2009, p. 135). These student group experiences are characteristic of high levels of peer interaction and student socialization (Newcomb, 1962; Weidman, 1989). While many of these organizations collaborated with off-campus, community-based organizations, the organizations examined in the study were located on college and university campuses and consisted largely of enrolled students who were responsible for developing and implementing the organization's mission, goals, purposes, and objectives.

One form of co-curricular involvement is students' participation in student-based political clubs and organizations. For the purposes of this study, it was referred to as political involvement. Respondents in the study's sample were sorted into four subgroups according to the types of campus-based student organizations in which respondents indicated involvement. There were no overlaps among the subgroups. If students indicated they were involved in at least one political or advocacy organization and no other organizations, then they were assigned to the "political" subgroup. If students

indicated they were involved in at least one student organization type other than a political or advocacy organization but no political groups, they were assigned to the "non-political" subgroup. If students indicated they were involved in both types of organizations, i.e., at least one political or advocacy organization and at least one non-political or non-advocacy organization, they were assigned to the "both political/non-political" subgroup. Students who indicated there were not involved in any of the student organizations were assigned to the "non-involved" subgroup.

Significance of Study

This study bears significance for leadership and student development scholars as well as college educators and practitioners who are charged with designing, executing, and evaluating leadership development programs. Although there is a great deal of research on the educational outcomes of attending college (A. W. Astin, 1993; Pascarella & Terenzini, 2005), the literature specifically related to the influence of higher education on college students' capacities for leadership is "relatively sparse" (Dugan & Komives, 2010, p. 525). Little is known about college student leadership needs due to a failure to consider college students as a unique population in the context of existing leadership theories and models (Dugan & Komives, 2010; Komives et al., 2007). When undergraduate students are studied in empirical leadership research, they often are examined using theories developed for other populations such as those in business and other large organizational contexts. Only recently have models of leadership aimed specifically at fostering college students' leadership (HERI, 1996; Komives, Lucas, & McMahon, 1998, 2006; Kouzes & Posner, 1987, 1988, 2008; Posner, 2004; Posner & Brodsky, 1992). Just as the paradigm shift had been occurring in the broader leadership

field, a different understanding of student leadership occurred, so that student leaders are those "who are actively engaged in making a positive difference in the society" (A. W. Astin & Astin, 2000, p. 2), regardless if their involvement in organizations is as formal leaders or general members. This changed view of a "leader" affects how leadership is practiced. Developing leadership, then, becomes more about how to participate in the leadership process than how to be an effective leader. By specifically examining the leadership development of college students based on the SCM (HERI, 1996), which was intentionally designed for college students, this study attempted to address this knowledge gap.

Among the few studies that examined college students' leadership development (A. W. Astin, 1993; Cress et al., 2001; Dugan & Komives, 2007; Kezar & Moriarty, 2000; Smart et al., 2002; Zimmerman-Oster & Burkhardt, 1999), limitations in definition and measurement were noted (Dugan, 2008a; Komives et al., 2007; Dugan & Komives, 2010). Most of these studies used instruments that were not specifically designed to assess leadership, but instead examined leadership-related skills with a relatively small number of items that were based on conceptions of leadership (Rost, 1993) that are widely considered outdated and ineffective (A. W. Astin & Astin, 2000; Dugan, 2008b; Dugan & Komives, 2007; HERI, 1996; Kezar et al., 2006; Komives et al., 2007, 2009). Findings were unclear and inconsistent (Dugan, 2006a, 2006b) as well as limited by utilizing samples of students at single institutions.

To address these methodological limitations in the literature, the present study used the SCM and MSL data to analyze student leadership outcomes and thereby contributed to a growing body of research that also uses the SCM and MSL data to

examine students' leadership development (e.g., Dugan & Komives, 2007, 2010; Dugan, Komives, & Segar, 2008; Haber & Komives, 2009; Page, 2010; Rosch, 2007). The strength of this design entails asking students about their attitudes, values, and behaviors related to leadership, rather than asking them to self-rate their leadership ability. Therefore, little interpretation was left for respondents (Tyree, 1998). Additionally, the measures of the SCM that were used to assess students' leadership development (i.e., SRLS-R3) were consistent with the current, postindustrial views of leadership (Kezar et al., 2006; Komives et al., 2007, 2009; Rost, 1993). Since the SRLS-R3 did not approach leadership from a positional standpoint, the development of all students, including those did not hold formal positions or titles in student organizations, could still accurately be measured in this study. Further, by analyzing four subgroups of students, drawing comparisons and exploring possible differences among them allowed for deeper understanding related to the role of students' co-curricular involvement and leadership development than if students involved in political organizations were studied alone.

This study's use of the 2009 MSL dataset provided further benefits due to the representativeness of the sample of 115,632 college students from a diversity of institutions and the recent nature of the MSL data, as it was the most current data available (Dugan, 2008a; Dugan & Komives, 2007, 2009). It addressed concerns expressed in the literature (Longo & Meyer, 2006; Page, 2010) that too much of what is known about students' political involvement is based on students of the past (i.e., from the 1960s through 1990s). Recent shifts in student patterns and trends demand new examination (Howe & Strauss, 2000; Long, 2002; Longo, 2004; Longo & Meyer, 2006;

Zukin et al., 2006). Therefore, this research should be a timely contribution to the literature.

This study presented a theoretically grounded understanding of the relationship between students' political involvement and socially responsible leadership, including which student characteristics, precollege experiences, and collegiate experiences contributed to it. This study revealed that the non-involved subgroup had significantly the highest proportions of female students, students of color, and first-year students compared to the other three subgroups. Additionally, evidence from the study suggests students' demographic background and precollege experiences emerged as the most significant predictors of socially responsible leadership. Involvement in political organizations was positively related to leadership development, but students gained the most from involvement in both political and non-political organizations compared to participation exclusively in political or non-political organizations. Findings supports a substantial body of theory and research (A. W. Astin, 1993; Cress et al., 2001; Komives et al., 2009; Pascarella & Terenzini, 2005) that demonstrates student involvement leads to student development and learning outcomes, including the development of leadership skills and activities. Numerous implications arose from this research for higher education researchers and practitioners. This research reinforces the historic and important role of colleges and universities in educating a socially responsible and engaged citizenry, which is at the core of higher education's civic and public mission.

Chapter Overview

This chapter introduced the background and relevant research informing the study. Chapter Two engages the research more deeply with an analytic review of the

literature, exploring the contextual issues and scholarly work grounding the study. Chapter Three includes a detailed discussion of the methodology used to answer the study's research questions, including research design, frameworks, and statistical procedures. Chapter Four contains the reporting of the results of the study. Chapter Five concludes with a discussion of findings, connecting key results to the extant literature and presenting the study's implications and directions for future research.

CHAPTER TWO

REVIEW OF LITERATURE

This chapter consists of an analytic review of the literature on leadership development and political involvement of college students. It begins with a discussion of trends and issues related to the political involvement of college students, presenting the contextual backdrop for this research. As student co-curricular involvement on leadership development is informed by leadership theory, the chapter continues with an overview of the leadership literature followed by discussion of the industrial and postindustrial paradigms and the theories within them. The chapter continues with discussion on leadership development as it applies to higher education, with particular attention to the four models of leadership development frequently used with college students. Framed by student involvement theory, research on the effects of student involvement on student outcomes, including leadership, is reviewed. The chapter concludes with discussion of how political involvement was defined in this study, along with an analysis of how scholars have attempted to define political involvement and how such literature informs the definition adopted for this study.

Trends in College Student Political Involvement

A recent surge in interest surrounding the political engagement of college students has occurred within the context of higher education (Colby et al., 2003, 2007; Dalton & Crosby, 2008a, 2008b; Ehrlich, 2000; Galston, 2001; Harriger & McMillan, 2007; Levine, 2007; Lopez & Kiesa, 2009; Pryor et al., 2009). It was widely reported that in the 2008 presidential election, college students played a key role in the political process and voting decisions (“Educate Early,” 2008; Harvard University Institute of Politics, 2008;

Lawrence, 2008; Lopez & Kiesa, 2009; The Pew Charitable Trusts, 2008). While older Americans voted at lower rates than in 2004, voter turnout among young people (ages 18 to 29) in 2008 was one of the highest recorded (Kirby & Kawashima-Ginsberg, 2009). An estimated 22 million young Americans under the age of 30 voted in the 2008 presidential election, reflecting a 51% turnout rate compared to 40% in 2000. It marked the first time the youth vote had risen in three consecutive election cycles since 1971. These trends signify that recent increases in political participation are not one-time phenomena, but instead represent a "civic awakening of a new generation" (Harvard University Institute of Politics, 2008, p. 1).

In the years leading up to the 2008 election, there was much concern that young people were abdicating participation in political activities and turning to community service "as a way to avoid the confrontational world of politics" (Longo, 2004, p. 61). Concerns about declining involvement in the political process beyond voting have been widely documented, particularly among young people, suggesting that American society faces a crisis in citizenship and leadership (Ehrlich, 1999; Eisenhower Leadership Group, 1996; Gibson, 2001; Hollander & Hartley, 2000; Hollister, Wilson, & Levine, 2008; Levine, 2007; Levine & Cureton, 1998; Longo & Meyer, 2006; Loeb, 1999; Morse, 1989; National Commission on Civic Renewal, 1998; Putnam, 2000). Putnam's (2000) work is frequently cited as evidence of the general decline in engagement. His research showed that older Americans, particularly those who reached adulthood during the Depression and World War II, had been deeply engaged in institutions such as public meetings, churches, and community-based organizations as well as political and electoral processes such as voting, much more than the generations that came after them. This

divide has continued to grow steadily since the 1980s, demonstrating a trend toward disengagement becoming even more significant than years past.

A. W. Astin & Astin (2000) observed, "A major problem with contemporary civic life in America is that too few of our citizens are actively engaged in efforts to effect positive social change" (p. 2). The National Commission on Civic Renewal (1998) warned that society was in danger of becoming a "nation of spectators" (p. 1) because too many citizens had become passive and disengaged from participating in political and civic affairs. A leadership vacuum exists, according to the Eisenhower Leadership Group (1996), because too few individuals are willing to accept the demands of public leadership. Moreover, trend data shows that as volunteering has increased rapidly in recent years, participation in and knowledge about civic and political issues and processes has decreased dramatically (Colby et al., 2003; Ehrlich, 2000; Gibson, 2001). This "scissor effect" (Longo & Meyer, 2006, p. 2) is particularly pervasive among college students (Cone et al., 2001; Dalton & Crosby, 2008a; Longo & Meyer, 2006). Cone et al. (2001) suggests, "Although many students are civic minded and public spirited, especially in the arena of volunteer work, they are less committed to politics and government than adults overall are and less engaged in politics than earlier generations of young people" (p. 2). These trends lead many to conclude that a widespread and pervasive political deficit disorder among college students exists (Levine, 2007; Levine & Cureton, 1998; Loeb, 1999; Longo, 2004; Morse, 1989). According to Levine (2007), college students today are tolerant, patriotic, and idealistic, but many lack the skills and opportunities they need to participate in politics or address public problems. Other national studies (Harvard University Institute of Politics, 2008; National Association of

Secretaries of State, 1999; Panetta Institute, 2000) support these claims, providing further evidence of diminished political engagement despite high rates of volunteerism.

Yet, recent studies (Hurtado & Pryor, 2007; Pryor et al., 2009) suggest these trends are shifting. Political engagement by today's Millennial students, whom scholars (Howe & Strauss, 2000) argue have different attitudes and behaviors than the generations of students who preceded them, is at an all-time high. Since 2000, college students have been volunteering at high rates, but also have become more interested in news and political affairs (Pew Charitable Trusts, 2008), with 89.5% of first-year students reporting that they frequently or occasionally discussed politics in the last year (Pryor et al., 2009). While the proportion of students reporting that keeping up to date with political affairs was an important personal goal did not exceed that of the baby boom generation when, in 1966, over 60% of students reported it, the rate has grown steadily to 39.5% in 2008 after hitting a record low of 28.1% in 2000 (2009). Further, the proportions of incoming students committed to social and civic responsibility are at record levels (Hurtado & Pryor, 2007; Pryor et al., 2009). First-year students who entered college in fall 2008 reportedly were more engaged politically and participated in political discourse more than any other group of entering students since political engagement was first tracked 40 years ago (Pryor et al., 2009). According to HERI director Sylvia Hurtado, "This last [2008] election, and the need to attend to the nation's problems, has captured the hope and imagination of college students who will be committed to helping devise solutions" (as cited in Wyer, 2009, p. 1). Additionally, advancements in technology have influenced more college students to engage in politics in recent years, contributing to new forms of political engagement and changing the way in which they participate in politics and

advocacy. The Internet and social media tools such as Facebook, MySpace, and Twitter have revolutionized the way college students not only receive news and information, but also the ways they organize, mobilize, and participate in politics and advocacy (Galston, 2003; Harvard University Institute of Politics, 2008; Levy, 2008; Zukin et al., 2006). Experts anticipate these positive trends will persist for years to come (Dalton & Crosby, 2008b; Hurtado & Pryor, 2007; Pew Charitable Trusts, 2008; Pryor et al., 2009; Quaye, 2007).

Lopez and Kiesa (2009) offer additional reasons that may explain why young people with college experience are among the most politically engaged of all American citizens. First, college may have a positive effect on students' engagement through its rich programs and opportunities designed to involve students in political affairs and educate them for democracy. Second, college students have opportunities to interact with other people who are engaged. Through interaction with their peers (A. W. Astin, 1993; Newcomb, 1962), students engage with other students who are politically engaged and gain access to networks of people who can, in turn, connect them to other networks that include potential employers and mentors. Additionally, students have opportunities to interact with professors and professional staff members who can offer similar kinds of access to other people and opportunities. Third, it is likely that colleges admit students who are already engaged. Having a student body largely comprised of engaged students makes colleges appear better at fostering engagement. The number of students who enter college with prior volunteering experiences has been steadily increasing since the mid-1980s, which possibly reflects the growing importance of admitting students with such experiences.

The Relationship between Political Involvement and Leadership Development

Against this backdrop is a movement underway among colleges and universities to return to their original civic mission by purposefully developing socially responsible leaders (Colby et al., 2003, 2007; Checkoway, 2001; Dugan & Komives, 2007; Hollander & Hartley, 2000; Jacoby & Associates, 2009; Kezar, 2005; Kezar et al., 2006). College students' political involvement has emerged as a central concern among colleges and universities, particularly pertaining to the need for institutions to prepare students with the leadership skills, behaviors, and attitudes so that effective leadership and democracy will remain viable in American society (AACU, 2007; Ehrlich, 2000; Colby et al., 2003, 2007; Jacoby, 2006; Levine, 2007; Ong, 2008). A growing number of colleges and universities are actively pursuing and implementing programs to increase students' political involvement. Such programs aim at preparing students for engagement in civic and political affairs after college and "educating them for democracy, nurturing community, and promoting civic participation" (Kezar, 2005, p. 45). Yet, achieving these goals is not without its challenges. Lee. S. Shulman, former President of the Carnegie Foundation for the Advancement of Teaching, argues that programs aimed at fostering students' political involvement are fragmented and inadequate for meeting these goals (Shoichet, 2002, p. A34). Zukin et al. (2006) contend that university programs aimed at preparing students with the motivation, skills, and opportunities to participate in politics are not "conscious, collective, and systematic" (p. 204).

In January 2012, college educators convened in Washington, DC, as part of the National Task Force on Civic Learning and Democratic Engagement, and called on the nation's higher education institutions to act on their long-standing civic mission to

educate students for informed, engaged citizenship. According to the National Task Force (2012), students' development of social responsibility is an essential educational outcome, mandated by the challenges of the 21st century, vis à vis other national priorities of college access, completion, and workforce preparation. They also argue that higher education institutions are not doing enough to foster students' social responsibility, calling for institutions to go beyond knowledge acquisition by encouraging students' political involvement outside the classroom.

Intertwined with political involvement is the issue of democracy and the role educational institutions have in preparing students to assume the responsibilities of citizenship in a democratic society (Colby et al., 2003, 2007; Dalton & Crosby, 2008a, 2008b; Ehrlich, 1999, 2000; Harriger & McMillan, 2007; Hollander & Hartley, 2000; Keeter et al., 2002; Levine, 2007; Levine & Cureton, 1998; Longo & Meyer, 2006; Ong, 2008; Zukin et al., 2006). Citizenship, defined as responsibility and concern for the common good, is recognized as an essential learning outcome of a college education (Hamrick, Evans, & Schuh, 2002). The AACU (2007) explains, "In a democracy that is diverse, globally engaged, and dependent on citizen responsibility, all students need an informed concern for the larger good because nothing less will renew our fractured and diminished commons" (p. 13).

When the health of a nation's democracy depends on an active citizenry, and when too many of its citizens take its democracy for granted, the quality of the nation's civic health is seriously threatened, according to scholars (A. W. Astin & Astin, 2000; AACU, 2007; Colby et al., 2003, 2007; Dalton & Crosby, 2008a, 2008b; Ehrlich, 2000; Harriger & McMillan, 2007; Levine, 2007; Zukin et al., 2006). An engaged citizenry is

comprised of people taking responsibility for building communities, solving public problems, and participating in the electoral and political processes (Gibson, 2001; Longo & Meyer, 2006). Active citizens are essential in order for democratic societies to address its most pressing problems and challenges, to sustain, and to thrive (Keeter et al., 2002). Moreover, an engaged society can lead to improved schools, increased economic development, lower crime rates, and a more effective government (Zukin et al., 2006).

Without intentional efforts by colleges and universities to foster political involvement in its students, the future of American democratic ideals may be seriously threatened. For instance, experts predict a slow and steady decline in voting rates and participation in campaigns and elections; further erosion of attention to and interest in public affairs, politics, and government; and increasing reliance on private and nonprofit sectors to provide solutions to public matters. Further, lacking an engaged citizenry focused on social responsibility and the common good may profoundly affect American democracy and its very definition of representativeness led by a government of, by, and for the people. According to Ong (2008), "A low or declining level of civic and political engagement has been interpreted as a weakening of the fabric that binds the country" (p. 2). King (1997) asserts, "Helping students develop the integrity and strength of character that prepare them for leadership may be one the most challenging–and important–goals of higher education" (p. 87). Because the strength and vitality of democracy depends on an active citizenry, educating college students for leadership and political involvement is critical.

Issues of political involvement are linked with leadership. According to scholars (A. W. Astin & Astin, 2000), the most serious problems plaguing American society, such

as economic inequality, racial injustice, and educational disparities are problems of leadership, and a lack of an engaged citizenry without social responsibility for the common good may "cripple our capacity to deal constructively with [these and] most of the other problems" (p. 2). Top-down, unidirectional, hierarchical leadership is insufficient for solving these difficult public issues. Rather, leadership that is relational, collaborative, community-based, and public is essential (H. S., Astin, 1996; A. W. Astin & Astin, 2000; HERI, 1996; Komives et al., 2009). Addressing the challenges of the 21st century and improving society's civic and political health cannot be advanced without students' socially responsible leadership development (A. W. Astin & Astin, 2000; Gamson, 2000; Musil, 2003; Zimmerman-Oster & Burkhardt, 2000).

Longo and Shaffer (2009) argue that institutions of higher education must foster socially responsible leadership so that is "integrally connected to the kind of learning that asks students to see themselves as creators and agents actively shaping local and global communities" (p. 155). Therefore, the critical challenge for institutions of higher education is to empower students and teach them the skills that will enable them to become active agents of social change (A. W. Astin & Astin, 2000; Gamson, 2000; HERI, 1996; Kezar et al., 2006; Komives et al., 2007, 2009; Longo & Shaffer, 2009; Zimmerman-Oster & Burkhardt, 2000). Institutions must foster students' socially responsible leadership development because students are "those who have the greatest potential to shape the nation's future" (Zimmerman-Oster & Burkhardt, 2000, p. 24).

Definitions and Conceptualizations of Leadership

The literature on leadership development is complex. A single, precise definition of leadership eludes most scholars and practitioners (Bass, 1990; Burns, 1978; Kezar et

al., 2006; Komives, Dugan, Owen, Slack, & Wagner, 2006; Northouse, 2007). Bass (1990) observed, "There are almost as many different definitions of leadership as there are persons who have attempted to define the concept" (p. 11). Northouse (2007) posited, "Although each of us intuitively knows what he or she means by such words, the words can have different meanings for different people" (p. 2). Burns (1978) characterized leadership as "one of the most observed and least understood phenomena on earth" (p. 2). Further, as a socially constructed phenomenon, leadership reflects the perspectives and practices of the current context and continues to evolve over time as society changes (A. W. Astin & Astin, 2000; Rost, 1997; Woodward, Love, & Komives, 2000). Therefore, it is difficult to identify such a clear, all-encompassing definition of leadership.

Since scholars began writing about leadership in the 1890s, most of the definitions of leadership have remained relatively consistent but lacked a unifying theme or holistic framework (Burns, 1978; Rost, 1997). Contributing to this "incoherent mess" (Rost, 1997, p. 5) was the nature of how leadership research was conducted. Much of the research was scattered across academic fields without any scholarly, interdisciplinary collaboration, as leadership scholars pursued inquires of leadership based on different conceptions of leadership (Burns, 1978). As a result, the literature failed to advance a central concept of leadership, i.e., how it is defined, conceptualized, and measured.

In a review of leadership research, Bass (1990) proposed a classification scheme for the most popular definitions of leadership found in the scholarly literature. A simple definition suggests leadership is any act or behavior that leaders do to bring about change in an organization. It implies movement toward some end or goal. It differs from management, which suggests preservation or maintenance (A. W. Astin & Astin, 2000).

Other definitions focus on the more complex dynamics of leadership such as group processes, personality, skills, power, and transformation (Avolio & Gardner, 2005; Bass, 1990; Burns, 1978; Kouzes & Posner, 1987; Covey, 1989; Hersey-Blanchard, 1993). From the perspective that leadership is the focus of group processes, the leader is at the center of group change and activity and embodies the will of the group. Other conceptualizations view leadership from a personality perspective, which posits that leadership is a combination of special traits or characteristics that individuals possess that enable them to induce others to accomplish tasks. By contrast, some scholars approach leadership from a skills perspective, which emphasizes the knowledge and skills that make effective leadership possible. Additionally, leadership has been conceptualized in terms of the power relationship between leaders and followers. This perspective advances the notion that leaders wield power in order to affect change in others. Others view leadership as a transformational process that moves followers to accomplish more than what is usually expected of them.

The leadership literature took a dramatic shift in the way theorists and practitioners conceived, defined, and practiced leadership with the publication of *Leadership for the Twenty-First Century* (Rost, 1993). Rost (1993) defined leadership as "an influence relationship among leaders and collaborators who intend real changes that reflect their mutual purposes" (p. 102). Under this definition, leadership is broadly defined and encompasses the multiple ways people engage in leadership. Rost (1997) elaborated on his definition by stating:

> Leadership is not what one individual labeled a leader does. Leadership is what leaders and collaborators to do together. Leadership is people bonding together to

> institute a change in a group, organization, or society. Leadership is community of believers who pursue a transformational cause. Leadership is a group of activists who want to implement a reformist agenda. Leadership is a band of leaders and collaborators who envision a better future and go after it. (p. 11)

Four essential elements underscore Rost's (1993) definition of leadership. One, the leaders-collaborators relationship is based on influence, rather than authority or power. Influence refers to using persuasion to have an impact on other people. Two, leaders and collaborators all do leadership. There is no followership. Three, both leaders and collaborators have the potential to produce real change. Change does not happen by chance or accident, and real refers to the type of changes that are intentional, substantive, significant, or transforming. Lastly, the real, intended change reflects the mutual purposes of both the leaders and collaborators. Organizational purposes are shared and advanced in a non-coercive, influential way. Rost's (1993) definition of leadership is significant because it acknowledges the relational nature of leadership and reflects the various roles of people who engage in leadership. Scholars and practitioners of leadership alike have widely praised and accepted Rost's definition of leadership (Shepard, Farmer, & Counts, 1997).

Leadership Theory

It would be an oversimplified approach to understand the body of leadership theory as a continuous chronological movement from simplistic, hierarchical, and individualistic definitions to more complex, relationship, and democratic forms of leadership (Edwards, 2006; Rost, 1993). Many theories of leadership still exist, are studied and practiced, and are applied widely in various contexts; still, they are best

understood through two paradigms: industrial and postindustrial (Rost, 1993) (see Table 2.1). The industrial paradigm views leadership as structured, hierarchical, and unidirectional, whereas the postindustrial paradigm recognizes leadership as a socially constructed notion defined by the ongoing interactions and interpretations of people engaged in the leadership process (Rost, 1993). These paradigms of leadership, as well as the theories within them, are discussed in detail in the next section.

Industrial paradigm of leadership. The industrial paradigm of leadership assumes many conventional views of leadership that had been dominant throughout the 20th century, characterizing leadership as structured and unidirectional (Komives, Dugan, et al., 2006; Northouse, 2007; Rost, 1993). Based implicitly on power, competition, and rewards, industrial theories tend to be hierarchical, driven by the concept of a designated "leader" who provides "the followers" with vision, energy, and whatever resources are needed to achieve the desired goals. Individuals who complete their designated tasks are rewarded by financial means, status, promotion, and so forth. For example, Prince and Associates (1985) defined leadership as "the process of influencing human behavior so as to accomplish the goals prescribed by the organizationally appointed leader" (p. 7). Leadership is what great men do, according to this perspective. This notion of followership implies the role of being a follower involves being passive, submissive, subordinate, controlled, and directed (Rost, 1997). By contrast, leaders are active, dominant, in control, intelligent, and productive. Leaders are the elite; followers are the "sweaty masses" (Rost, 1997, p. 9). Notably, as recently as the 1990s, leadership scholars were recognizing that leadership is also what women do (H. S. Astin & Leland, 1991). The overarching assumption of the industrial paradigm is individualism, which situates

leadership as a function of an individual person, i.e., the leader, and not group process. For example, Bennis (1984) described, "true leaders [as those] who affect the culture, who are the social architects of their organizations and who create and maintain values" (p. 16). Leadership is assumed as interchangeable with management, situating leadership as good management. The major theories of leadership under the industrial paradigm of leadership are great man, trait, behavioral, and styles.

Great man theory of leadership. This theory of leadership focuses on the behaviors of exceptional men in leadership positions. This approach considers leadership as an innate set of abilities rather than those that can be developed (Northouse, 2007). In leadership studies following this approach, scholars examine people who they consider role models for learning about leadership. With an emphasis on behaviors, leadership is often studied through biography. Historically, this theory was thought to apply only to white men as scholars rarely studied the leadership abilities of women and people of color (Balón, 2005). Edwards (2006) explains that this approach "communicates leadership as something one either has or doesn't, leaving no need or reason for leadership education or development" (p. 4).

Trait theory of leadership. The trait approach was developed from the great man theory, focusing on the innate traits that make great leaders. Emerging in the early 1900s, it posited that leadership is about the inherent characteristics with which individuals are either born or lack, and these personality traits may lead people naturally into leadership roles (Bass, 1990). Trait theories identify specific personal characteristics that contribute to a person's ability to assume and successfully function in positions of leadership regardless of gender (Bensimon, Neumann, & Birnbaum, 1989). The leadership literature

is replete with narratives about CEOs, college presidents, and principals and the personal traits and behaviors that have made them successful, popular examples include heroic stories of such individuals as John Wayne, George Patton, Franklin D. Roosevelt, John Kennedy, Martin Luther King, Lee Iacocca, and Mahatma Gandhi. According to this theory, great leaders, as opposed to ordinary ones, possess intelligence, self-confidence, determination, integrity, and sociability (Bass, 1990). It is believed that these traits influence followers to do what the leaders wish rather than focusing on their own interests in order to achieve the group or organization's goals (Rost, 1997). Proponents of this approach to leadership "tend to identify identical traits for all leaders, transcending all contexts, and thus focus their efforts on developing a definitive list of leadership traits" (Kezar et al., 2006, p. 6). However, there is little evidence that link measures of these traits with leadership behaviors (Edwards, 2006). Further, trait theorists mistakenly assume people perceive traits universally (Kezar et al., 2006).

Behavioral theory of leadership. Trait theories began to give way to behavioral theories as a result of the growing field of psychology in the mid-1900s (Komives et al., 2007; Northouse, 2007). These theories posit that leadership is less about inherent characteristics and more about a specific set of human behaviors that can lead to effective leadership that, if engaged, they would produce positive outcomes such as efficiency and productivity. Whereas early behavioral theory focused on what the leader did to get followers to do what they wanted, contemporary versions of the behavioral approach consider followers more central to the process. Examples of this approach include *The Leadership Challenge* (Kouzes & Posner, 1987) and *The Seven Habits of Highly Effective People* (Covey, 1989). These behavioral approaches recommend behaviors for anyone

engaged in leadership at all levels of the organization, not just leaders in a positional leadership role. This approach is lauded for its pragmatism and accessibility to students at all levels of leadership development (Komives et al., 2007; Northouse, 2007). However, since many of the current behavioral theories of leadership are based on leadership in business organizations, critics charge that leaders in different types of environments, such as education, athletics, or politics, might use dramatically different leadership behaviors to achieve success (Kezar et al., 2006; Rost, 1993).

Situational/contingency theory of leadership. The situational/contingency approach to leadership emerged in large part due to the oversimplification of the complexity of leadership advanced by the behavioral theories of leadership (Komives et al., 2007). Unlike the trait or behavioral theories of leadership, situational/contingency theories address the role of the environment or context in shaping the effectiveness of leaders, reflecting a situational or contingency approach on what leaders do and how they act (Hersey-Blanchard, 1993; Fiedler, 1967). Individuals might enact a set of behaviors in one environment with positive results, but experience negative ones when enacting the same behaviors in another environment. The environment has the greatest influence on leadership success and requires different sets of behaviors and types of leadership (Hersey-Blanchard, 1993). The effectiveness of leaders depends on their ability to assess quickly and accurately the needs of a group or situation based on the level of support and level of directiveness or task orientation (Hersey-Blanchard, 1993; Komives et al., 2006, 2007; Northouse, 2007). Leaders can exhibit four styles of leadership, each at varying degrees in different situations: delegating, supporting, coaching, and directing (Hersey-Blanchard, 1993). While this approach is practical and easy to adapt to different

situations, it is unclear how leaders should adapt to a group that has individuals with different needs (Northouse, 2007). Moreover, Rost (1997) critiqued the approach as superficially focused on the leader, inhibiting transformational change, and contradictory to leadership defined as interactions between leaders and collaborators.

Postindustrial paradigm of leadership. The postindustrial paradigm of leadership emerged in the latter part of the 20th century and early part of the 21st century in response to concerns that industrial theories did not capture the complexity of leadership, especially in a modern world that is increasingly connected and less hierarchical. Social structures and work practices have become flatter, more complex, and more relationship-oriented (Rosch & Caza, 2012). Further, critics (Komives et al., 2007; Rost, 1993) charge that the top-down approach to leadership promoted by the industrial paradigm of leadership does not accurately describe how leadership actually occurs, arguing that (a) leadership is based on relationships and does not belong to any individual; (b) the purpose of leadership is to create change; and (c) leadership can be done by anyone, not just by people who are designated leaders. These new social, political, and economic issues demand corresponding changes in how leadership is conceived (Kezar et al., 2006). Hence, leadership theory has shifted from the industrial paradigm of focus on hierarchy, control, and division of labor to a postindustrial orientation that emphasizes relationships, collaboration, trust, ethics, and social responsibility to the welfare of others (Kezar et al., 2006; Komives et al., 2007, 2009; Rost, 1993).

Following these shifts, theories under the postindustrial paradigm emphasize the shared process and collectivist nature of leadership, focusing on change and relationships

rather than hierarchical power (Komives et al., 2007; Rogers, 2003; Rost, 1993, 1997). There is less emphasis on individuals and greater emphasis on the relational nature of leadership, shifting the focus to people in all positions and roles in organizations. Leadership became more about collective action towards common goals. Often, these goals are aimed at creating social change, which becomes possible through the blurring of positional boundaries and enhancing the quality of relationships within groups (Dugan, 2008b; Komives et al., 2007). Rost (1997) further explains postindustrial leadership,

> Leadership is not what one individual labeled a leader does. Leadership is what leaders and collaborators to do together. Leadership is people bonding together to institute a change in a group, organization, or society. Leadership is community of believers who pursue a transformational cause. Leadership is a group of activists who want to implement a reformist agenda. Leadership is a band of leaders and collaborators who envision a better future and go after it. (p. 11)

Under the postindustrial paradigm of leadership, transformational and authentic are the major theories of leadership.

Transformational theory of leadership. The theory of transformational leadership (Burns, 1978) marked the beginning of one of the most dramatic shifts in leadership research and signified new thinking about leadership as a reciprocal process for creating transformational change. As one of the most significant influences on the postindustrial paradigm of leadership (Kezar et al., 2006; Komives et al., 2007; Rost, 1997), transformational change was a new way of conceiving leadership. Theories moved from being leader-centric to emphasizing the role of followers in the leadership process.

Leadership, according to Burns (1978), is a reciprocal process among people who are working together to accomplish something, usually a change process. Leadership is transformational whereby positional leaders elevate organization members to act less as followers and more as participants in the leadership process. Leaders engage with followers to accomplish shared purposes with an emphasis on the group from which leaders' credibility, authority, and influence comes. By seeking leadership development in their followers, positional leaders "encourage individuals to foster a process from any position in the organization and to use a variety of influences, not just positional, to shape the collaboration" (Komives et al., 2006, p. 5). At its core, transformational leadership is about one person serving as the leader who has a purpose or vision and does what it takes to influence followers to accept his or her purpose. Although highly influential in the leadership field, it is critiqued for implying a transactional process that is management-like in nature, furthering the dominant themes of leadership in the industrial era (Rost, 1997).

Authentic theory of leadership. Rooted in positive psychology, authentic leadership refers to a process of both the leader and member engaging in mutual development focused on increasing self-awareness and self-regulated positive behaviors while functioning in a group or organization. This theory emphasizes authenticity among leaders as well as members (Avolio & Gardner, 2005). It also underscores authenticity in the relationship between such people. Authentic leaders are "anchored by their own deep sense of self; they know where they stand on important issues, values, and beliefs" (2005, p. 329). Through this self-awareness, authentic leaders can reflect to others these issues, values, and beliefs through their actions so long as they are congruent. It reflects the

postindustrial paradigm in that it elevates the role of non-positional leaders in the leadership process such that it is a form of authentic transformational leadership.

Student Leadership Development in Higher Education

As emphasis on leadership development has increased, numerous models have emerged for developing leadership programs for college students, including the Leadership Challenge/Student Leadership Practices Inventory (Kouzes & Posner, 1987, 1988, 2008; Posner, 2004; Posner & Brodsky, 1992), servant leadership model (Greenleaf, 1977), relational leadership model (Komives et al., 1998, 2007), and the social change model of leadership development (HERI, 1996). Originally developed for the business sector, the Leadership Challenge/Student Leadership Practices Inventory delineates and measures five practices considered common among the most effective leaders by the model creators (Kouzes & Posner, 1987, 1988, 2008; Posner, 2004; Posner & Brodsky, 1992): challenging the process, inspiring a vision, enabling others to act, modeling the way, and encouraging the heart. Although noted for its practicality and accessibility to college students (Edwards, 2006), it has been criticized for the selectivity the authors used in choosing the sample of managers whom they interviewed to develop the model (Rost, 1993). Additionally, the model's specificity of behaviors applied to the complex and ambiguous process of leadership may not be appropriate. According to Rost (1993), effective leaders do not necessarily practice any or all of the five leadership practices.

Theorized by Robert K. Greenleaf (1977) who once worked as an executive at AT&T, the servant leadership model articulates that a servant leader is a servant first dedicated to meeting the needs of their organization or community. Leaders differ from

servant leaders by their opportunistic nature in seeking power, authority, or status. A servant leader's authority is derived from followers who "will freely respond only to individuals who are chosen as leaders because they are proven and trusted servants" (Greenleaf, 1977, p. 10). The model is noted for its empowering nature and focus on challenging the legitimacy of power in institutions and their leaders, resonating with college students who seek to challenge the status quo (Edwards, 2006). Hence, the model relates well to students involved in community service, volunteerism, and service-learning programs (Varlotta as cited in Edwards, 2006).

Developed by college educators (Komives et al., 1998, 2007), the relational leadership model defines leadership as a relational and ethical process of people together attempting to accomplish positive change. As a process-oriented approach to leadership, it promotes inclusivity and empowerment for students in positional and non-positional roles. It underscores that leaders must possess competency in knowledge, attitudes, and skills. Framing leadership as knowing, being, and doing, the model encourages leaders to be active in knowing themselves and others as well as how things work; being ethical, inclusive, and caring; and doing or acting in a socially responsible way. The model appeals to college students with its practical application and process-oriented approach; however, it is sometimes perceived as too idealistic and not what leadership actually is in the "real" world where often traditional views of leadership function (Edwards, 2006).

Although they are utilized by college leadership educators, many of these models were developed within the context of work organizations, emphasizing employee-employer relations in a corporate environment (Komives et al., 2007; Rosch & Caza, 2012). Therefore, they may have limited applicability to students in higher education

settings. This demands a model more appropriate for the higher education context, that can meet the developmental needs of college students, and that can develop students' leadership skills and behaviors that will empower them to address the complex demands of today's world (A. W. Astin & Astin, 2000; Fincher & Shalka, 2009). The social change model of leadership development [SCM] (HERI, 1996) is such a model, and since it provides the theoretical framework for this research, the next section focuses on the SCM in depth.

Social Change Model of Leadership Development

The social change model of leadership [SCM] (HERI, 1996) was adopted for this study (see Figure 2.1). It is one of the most well known student leadership models (Dugan & Komives, 2007, 2010; Kezar et al., 2006; Komives et al., 2009). The model was developed in the 1990s after A. W. Astin and H. S. Astin assembled a group of leadership scholars and educators who worked extensively with college students. They named themselves "The Working Ensemble" because, like a good jazz ensemble, every member's contribution to the team was essential, energy could flow among members of the group, and the whole was greater than the sum of its parts (Komives et al., 2009). Such a name reinforced the value of the collective effort.

The SCM was created to meet the needs of higher education and the demands of modern leadership by focusing on the importance of relationships, ethics, and sustainable engagement with society (H. S. Astin, 1996). At the time of its development, many citizens across the country had lost faith in major social institutions and the people that ran them. Particularly, political apathy and disengagement among college students was high. Extant leadership models were inadequate for neither addressing such problems in

society nor meeting the developmental needs of college students (HERI, 1996). The Working Ensemble was concerned that college students needed to value collective action for social change and learn to work with others in socially responsible ways. Moreover, college students needed to develop leadership based on a model that did not perpetuate outdated and inadequate conceptions of leadership from the industrial paradigm that emphasized only the role of the positional leader and not the process of leadership among all group members. Rooted in the belief that anyone can develop leadership capacity, the Working Ensemble developed such a values-based model that focused on how individuals can work effectively with others toward shared social concerns.

The SCM approach to leadership. The SCM defines leadership as a purposeful, collaborative, and values-based process that results in positive social change (HERI, 1996). It is grounded in the principle that leadership is inherently tied to social responsibility and manifested in creating change for the common good (1996). Consistent with the postindustrial paradigm of leadership, the SCM approaches leadership as a collaborative, non-hierarchical, values-based process that involves all members of a group in working toward shared group purposes. It is grounded in several key assumptions (HERI, 1996, p. 10):

1. Leadership is concerned with affecting change on behalf of others and society.
2. Leadership is collaborative.
3. Leadership is a process rather than a position.
4. Leadership should be values-based.
5. All students (not just those holding formal leadership positions) are potential leaders.

6. Service is a powerful vehicle for developing students' leadership skills.

The SCM was designed to foster individuals' clarification of values and development of self-awareness, trust, and the capacity to listen and serve others (HERI, 1996). It also emphasizes collaborative work to bring about change for the common good. Leaders of social change focus on collective action and shared power; they have a passionate commitment to social justice, equality, and inclusion (Komives et al., 2009).

The eight competencies of leadership. The Social Change Model of Leadership is designed to prepare a new generation of leaders to initiate social change (HERI, 1996). The model is based on the belief that effective leaders possess a strong and well-developed sense of personal values that link with action, a set of interpersonal and networking skills that incorporate systems thinking and conflict management into the development of trusting teams, and a desire to engage ethically, positively, and sustainably with society (HERI, 1996). Collectively, these attributes define eight competencies that form the core capacities required for effective modern leadership, clustered in three domains or levels: individual (consciousness of self, congruence, and commitment), group (collaboration, common purposes, and controversy with civility), and societal/community (citizenship). Change, recognized as the eighth competency, measures transition or comfort with change, not social change as described in the actual model. Positive social change for the common good is most likely to occur when individuals are self-aware, act according to their values, and are fully committed to the purpose. By engaging in social action, individuals come to realize that when they are committed to actions that they believe in, they can bring about change. Table 2.2 provides definitions for each of the values associated with the SCM.

Advantages of the SCM. The SCM is adopted specifically for this study because it has several key advantages over other leadership development models, mainly due to it fitting well within the higher education context and meeting the diverse, developmental needs of college students. First, the SCM is part of an informative and growing body of literature that focuses on student leaders as agents of change (Kezar et al., 2006). Recognizing that curricular and co-curricular activities (e.g., student organizations, residential living, volunteerism, and service-learning programs) provide rich opportunities for leadership development, the SCM can apply to students' development in these settings and give college students the tools to affect positive change (HERI, 1996, p. 6). The SCM promotes individual development and a process for change. As higher education responds to calls for returning to its civic mission by expanding its curricular and co-curricular programs aimed at fostering leadership development as well as political and civic engagement, the SCM aligns with the aspirational mission statements found on most college and university campuses. It offers a tangible way for educators to develop students' leadership by emphasizing certain skills and behaviors necessary for effective leadership. Scholars praise the model for being accessible to students who "are eager to challenge the status quo" (Edwards, 2006, p. 9) and easily connect with the model's eight competencies (Dugan, 2006a, 2006b; Komives, Dugan, et al., 2006). Moreover, the SCM can be applied in practice in myriad ways so educators can maximize the learning and development that comes from the various forms in which students are involved on campus.

Another advantage of the SCM is that it is inclusive and allows educators to involve more students in leadership development programs. The model is predicated

upon the notion that everyone has potential for being a leader and there is no single best way to lead (HERI, 1996; Kezar et al., 2006; Komives et al., 2007, 2009). Individuals possess the ability to lead in unique ways; therefore, contributions from every individual, whether in an organization, community, or society, are essential (Outcalt et al., 2001). Hence, the SCM expands traditional definitions of leadership by recognizing the leadership capacity of all students and avoids defining it as those who occupy formal student offices. Such a narrow definition will not only relegate most students to the role of non-leaders, but also create an implicit "leader-follower" hierarchy. By contrast, a non-hierarchical approach to leadership is powerful in that it expands the number of potential student leaders to include virtually all students, regardless of position or title, while simultaneously transforming the process by means of which leadership is exercised on college and university campuses (HERI, 1996).

Further, the SCM recognizes that leadership is not defined nor practiced in the same way by all populations of students (Komives et al., 2009), although it has been shown to disadvantage students who may not identify with leadership in an individual-oriented cultural context (Rosch, 2007). Research (Arminio et al., 2000; Balón, 2005; Harper & Quaye, 2007; Kezar & Moriarty, 2000) has shown that some students who come from African American or Asian American/Asian backgrounds tend to favor collectivism over industrialism and identify with a group-based rather than individual approach to leadership, which are values consistent with the SCM. In fact, students from African American/Black backgrounds tend to report greater capacity of socially responsible leadership, as defined by the SCM, compared to students from other racial/ethnic backgrounds (Dugan & Komives, 2007; Dugan et al., 2008). Additionally,

research has shown gender differences in leadership styles, suggesting a potential congruence between SCM values and the ways in which women tend to lead (H .S. Astin & Leland, 1991; Boatwright & Egidio, 2003; Dugan, 2006a, 2008a; Eagly, Johannesen-Schmidt, & van Engen, 2003; Haber, 2006; Page, 2010; Romano, 1996). Women's leadership styles tend to be more participative and transformational in nature compared to men's, with a stronger emphasis on relationships and being a part of a team. Dugan et al. (2008) reported that the research on gender and leadership "generally supports a female proclivity toward relational, collaborative, and democratic models [of leadership]" (p. 478). Dugan and Komives (2007) note that while many studies examining leadership under the postindustrial paradigm show higher leadership abilities for women (Dugan, 2006a; Eagly et al., 2003), much of the past research (Kezar & Moriarty, 2000) employing industrial approaches to leadership typically report higher leadership-related skills and ability for men. Those who come from non-privileged positions in society such as women and students of color traditionally do not practice industrial, hierarchical styles of leadership, often due to differences in values and culture found between these groups and the traditionally dominant leadership paradigms (Balón, 2005; Kezar & Moriarty, 2000). With the goal of educating and involving all students in leadership development efforts, the SCM allows educators to maximize the number of students involved.

Finally, the SCM emphasizes social justice whereas many other leadership development models omit it (H. S. Astin, 1996). By focusing less on the interests of the elite, the SCM sees leadership as a process predicated on the values of equity, inclusion, social justice, and service. These values are fostered by focusing on leaders who emphasize relationships, collaboration, self-knowledge, and citizenship (Komives et al.,

2009). Working with others ensures that those most affected by a change have a voice in what the change should be. Collaboration means the members of a community decide on a vision for change together and then work together to devise the means to achieve it. These elements of social justice could make the model appealing to students who feel marginalized as a result of their race, gender, sexual orientation, religion, ability, and other aspects of social group identities that suffer from societal and institutional forms of oppression (Loeb, 1999; Rhoads, 1997). The SCM underscores their role and voice in the process of leadership by recognizing them as agents of social change who might be considered leaders.

Limitations of the SCM. The SCM is not without its limitations or critiques. First, students may find the values of the model too idealistic (Edwards, 2006). The SCM implies that everyone shares the same beliefs on what constitutes a social good. Implicit is an understanding that any change is positive. Moreover, the model leaves little room to question whether change is the only acceptable goal for leadership. Second, the SCM lacks explicit cultural understanding of difference and how leadership is defined among members of various cultures (Komives et al., 2009; Rosch, 2007). The model assumes that individuals have a responsibility to practice leadership, which privileges students who subscribe to Western philosophies of leadership (Rosch, 2007). Under these philosophies, group members who are committed to their values have a responsibility to confront other members of the group regarding its mission and direction. This underscores the value of the individual over the group, which for some students who were not raised under traditional Western philosophies, may be contrary to their own notions of leadership (Arminio et al., 2000; Balón, 2005; Harper & Quaye, 2007; Sutton

& Terrell, 1997). Further, the SCM implicitly disadvantages students who do not subscribe to a non-hierarchical approach to leadership in which every group member has the potential to be a leader (Rosch, 2007). Many students of color, including those from international backgrounds, are less likely to identify themselves or members of their racial/ethnic group as leaders (Arminio et al., 2007; Balón, 2005; Harper & Quaye, 2007; Kezar & Moriarty, 2000; Sutton & Terrell, 1997). They often disdain the role of leader on campus, opting not to participate in leadership-related student groups and defining their actions as something other than leadership-related. Despite these limitations, the SCM was selected for this study in part due to its broad applicability to student populations, wide use on college campuses, recognition of social responsibility as an essential educational outcome, and grounding in theoretical measures of postindustrial notions of leadership.

College Student Involvement

The purpose of this study is to understand the relationship between students' involvement in co-curricular group experiences, specifically, political organizations and their capacities for socially responsible leadership under the social change model of leadership. The theory of student involvement (A. W. Astin, 1984) is the theoretical underpinning for this research. Therefore, following is a discussion of the theory followed by a review of the research on the effects of involvement on student outcomes, including leadership.

Student Involvement Theory

Student involvement refers to "the amount of physical and psychological energy that the student devotes to the academic experience" (A. W. Astin, 1984, p. 297). In other

words, the quality and quantity of students' involvement influences the amount of student learning and development. The benefits that students enjoy as a result of the college experience will be directly proportional to the time and effort that they invest in that experience (Pace, 1984). Student learning and development increases when they are more involved in academic and social aspects of the college experience. Involved students actively participate in student organizations and activities, devote considerable energy to academics, and frequently interact with peers and faculty.

Two key theoretical concepts within the student involvement literature are peer interaction (Newcomb, 1962) and student socialization (Weidman, 1989). These two theories provide a rationale for why co-curricular group experiences have the potential to be the strongest and most lasting influences on student educational outcomes. Dugan (2008b) states they provide "an interpretative frame from which to derive meaning regarding the most influential components of the overall college environment" (p. 20). Peer interaction and socialization reinforce A. W. Astin's (1984) theory of involvement, which suggested that involvement in peer groups play a significant role in influencing student development. These theories are particularly important in examining the outcome of leadership development, given that contemporary conceptions situate it as a function of group processes that are grounded in organizational contexts (HERI, 1996; Kezar et al., 2006; Komives, Dugan et al., 2006; Northouse, 2007; Rost, 1993).

According to Newcomb's (1962) theory, peer group interaction is one of the greatest sources of influence on student educational outcomes. Peer groups are "any set of two or more students whose relationships to one another are such as to exert influence upon them as individuals" (Newcomb, 1962, p. 489), and they form based on precollege

relationships, physical proximity in the college environment, and/or similar attitudes and interests. Of these three, peer groups based on similar attitudes and interests have the potential to be one of the strongest influences on student development. Weidman's (1989) concept of undergraduate socialization illustrates the context and process by which students are influenced by the college environment. He defined undergraduate socialization as "a process that results from the student's interaction with other members of the college community in groups or other settings characterized by varying degrees of normative pressure" (p. 304). Normative pressure is the power or influence over values, attitudes, and personal goals exerted by reference groups to which the student belongs and in which the students has established close personal relationships. These can include student group experiences in the college environment whereby students enter college, become exposed to socializing forces, and then assess and interpret these influences in the context of their own personal goals and decide to either change or keep those goals. Weidman (1989) contended that students heavily involved in co-curricular group experiences might be more likely than uninvolved students to form significant and meaningful referent group relationships with peers, suggesting that co-curricular group experiences may bear significant influence on the overall impact of college on students.

The theory of student involvement (A. W. Astin, 1984) was established through the classic college impact studies conducted by A. W. Astin (1975, 1977). A. W. Astin examined longitudinal data to identify the factors in the college environment that significantly affected students' persistence in college (1975). Results showed that curricular and co-curricular involvement played key roles in determining students' outcomes, i.e., persistence. Involvement in academic programs and activities such as

honors programs or undergraduate research projects, as well as co-curricular activities including athletics, social fraternities and sororities, and ROTC, positively affected students' persistence (1975). A. W. Astin (1977) followed up this research with another longitudinal study, examining the effects of various types of involvement on more than 80 different student outcomes. Involvement types included students' participation in student organizations such as student government and social fraternities and sororities, place of residence, honors programs participation, undergraduate research participation, academic involvement, student-faculty interaction, and athletic participation. Findings showed that all forms of student involvement were associated with greater than average changes in entering freshman characteristics. Some forms of involvement were more strongly associated with change than either entering freshman characteristics or institutional characteristics. Particularly for students' involvement in co-curricular activities, these findings underscore the power of peer interaction in contributing to changes in students' attitudes and behaviors. Students who become actively involved in student organizations interact frequently with their peers, which then accentuate the changes normally resulting from college attendance (1977).

Kuh (1993, 1995) extended this research and examined the effects of out-of-class experiences (i.e., co-curricular experiences) on student outcomes. While there are many benefits from college attendance such as increased knowledge, maturation, confidence, and independence (A. W. Astin, 1993), Kuh's research (1993, 1995) showed that involvement in co-curricular experiences enhances these already substantial benefits of college. Findings positively linked involvement with a wide array of desired college outcomes including retention and graduation, satisfaction with college, leadership

development, academic development, development of mature interpersonal relationships, and development of altruistic values. Such outcomes are consistent with student affairs' long-standing goal of development of the whole student (ACPA & NASPA, 2004). Findings confirmed past research that student involvement during college is one of the most important factors in student learning and personal development, and particularly, co-curricular experiences are vital parts of the higher education learning community (A. W. Astin, 1984; 1993; Pascarella & Terenzini, 2005).

In sum, this research (A. W. Astin, 1975, 1977; Kuh, 1993, 1995) demonstrated the impact of curricular and co-curricular involvement on student outcomes. These studies laid the groundwork for decades of research in which scholars applied the theory of involvement as a framework for investigations on the impact of various forms of involvement. Such research has demonstrated that different forms of involvement lead to different developmental outcomes (A. W. Astin, 1993; Pascarella & Terenzini, 2005). Based on their 20 years of research, Pascarella and Terenzini (1991) concluded, "One of the most inescapable and unequivocal conclusions we can make is that the impact of college is largely determined by the individual's quality of effort and level of involvement in both academic and non-academic activities" (p. 610). While involvement in co-curricular, student-based political organizations has so far received less attention in student development research (Chowdhry, 2010; Page, 2010), it has the potential for being a vehicle for enhancing students' development as it qualifies as a substantial investment of "physical and psychological energy" (A. W. Astin, 1984, p. 297) and involves interaction with peers.

Effects of Co-curricular Involvement on Leadership Outcomes

Estimates indicate that more than 50% of college students participate in some type of student-based group outside of the classroom at some point during college (NSSE, 2006). In recognition of leadership as an essential college outcome (AACU, 2007), a substantial amount of research has been conducted on the relationship between co-curricular involvement and students' leadership development. This research consistently demonstrates a positive relationship between involvement in co-curricular group experiences and students' leadership development (A. W. Astin, 1993; Cress et al., 2001; Kezar & Moriarty, 2000; Smart et al., 2002; Zimmerman-Oster & Burkhardt, 2000). Many of these studies used longitudinal surveys of multi-institutional, national samples of college students collected as part of the Cooperative Institutional Research Project (CIRP) conducted by the Higher Education Research Institute (HERI) at UCLA's Graduate School of Education and Information Studies. While useful, CIRP data poses its own set of limitations (to be explained later).

Some of the earliest research on college student leadership was conducted by A. W. Astin (1993), who analyzed a national sample of 4,000 students based on CIRP data collected between 1984 and 1989. Student leadership ability was defined as high self-reported scores on measures of leadership-related skills, including popularity, social and intellectual self-confidence, public speaking and writing skills, ability to influence others, and election to positional leadership roles. Results indicated associations between college experiences and increases in students who classified themselves as leaders. Results also showed that election to a positional leadership role in a student club or organization and the number of hours students participated in a student club or organization had strong,

positive effects on students' self-reported growth in leadership abilities. Peer interaction was shown to have played a central role in students' leadership growth.

Three types of involvement within co-curricular group experiences consistently emerge in the literature as contributing to students' development of leadership: co-curricular involvement, holding formal leadership roles, and participating in leadership training and education programs (A. W. Astin, 1993; Dugan, 2006a, 2006b; Haber & Komives, 2009; Kezar & Moriarty, 2000; Pascarella & Terenzini, 2005). Haber and Komives (2009) offered definitions for these types of involvement, as paraphrased:

- Co-curricular involvement: A form of involvement that occurs outside of the classroom and contributes to learning and developmental outcomes. This type of involvement reflects a form of activity that includes organized involvement in campus as well as community groups or organizations.
- Formal leadership role: a formal, recognized leadership position in a campus or community organization
- Leadership training and education program: Any program or activity intentionally designed to develop or enhance students' leadership skills, knowledge, or abilities. These can include the components of leadership training, education, and development through course, seminars, workshops, conferences, guest speakers, service and volunteer placement, mentoring, or outdoor education.

Shertzer and Schuh (2004) found that higher education institutions' implicit support of industrial notions of leadership may affect students regardless of whether they hold formal leadership positions. By involving students who traditionally have extroverted personalities and prefer structure, formality, and designated leaders, institutions privilege

the students who hold formal leadership positions in college organizations. Institutionally sponsored leadership development programs "cater" (Shertzer & Schuh, 2004, p. 116) to these students. Universities value students in leadership positions, seeking them when leadership opportunities become available, rather than engaging students who are less involved or those who question their own personalities or intelligence levels as qualifications for leadership positions (2004).

Haber and Komives (2009) explored the extent to which co-curricular involvement, holding formal leadership roles, and participating in leadership programs contributed to female and male college students' capacity for socially responsible leadership measured by self-reported scores on the SCM individual values (i.e., consciousness of self, congruence, and commitment). Using hierarchical regression, data from a sample of 3,410 undergraduate students at a single institution were analyzed. Involvement in student organizations was the most significant environment variable explaining the variance in students' leadership capacity. Holding a formal leadership position was significant for women's consciousness of self, and leadership training and education programs were not significant for any of the outcome measures.

Zimmerman-Oster and Burkhardt (2000) studied 31 leadership development programs funded by the W. K. Kellogg Foundation situated inside and outside the classroom on college and university campuses nationwide. Results demonstrated that leadership can be taught and learned, with long-term impact on students beyond graduation. Additionally, leadership development programs can be tailored to a wide range of institutional settings and student needs. They contend, "Exemplary models exist in all types of institutions and serve students who differ in gender, ethnicity, age, major,

and level of academic preparation" (p. 23). The study also emphasizes the criticality for colleges and universities to provide rich opportunities for leadership development through the curriculum and co-curriculum. Co-curricular experiences not only support and enhance the students' formal classroom and curricular experience, but can also create powerful learning opportunities for leadership development through collaborative group projects that serve the institution or community (Zimmerman-Oster & Burkhardt, 2000). Recognizing that the challenges of the 21st century demand new ways of conceiving and fostering leadership, they recommend,

> Finding a more effective means for developing the leadership talents of America's young adults requires not only that new methods for teaching critical leadership skills be devised, but also that the notion of leadership itself be broadened. More than anything else, leadership needs to be taught as a collaborative process for effective, positive social change. And rather than focusing solely on those who hold traditionally recognized positions of leadership, we must broaden our notion of who is a leader, so that many more Americans are empowered and able to lead in the future. (Zimmerman-Oster & Burkhardt, 2000, p. 24)

As part of the larger Zimmerman-Oster & Burkhardt (2000) study, Cress et al. (2001) reported findings from an examination on whether formal leadership programs influenced students' leadership ability and other personal and educational outcomes. In a longitudinal study utilizing CIRP data collected between 1994 and 1998, leadership outcomes of a sample of 875 students at 10 institutions who were involved in formal leadership programs were compared to those of students at the same institutions who had not participated. Involvement in formal leadership programs consisted of holding a

positional leadership role in a student club or organization as well as participating in formal leadership programs or workshops, alternative spring breaks, tutoring or peer mentoring programs, and volunteer or community service activities. Results showed that involved students reported higher growth than non-involved students in leadership skills, civic responsibility, multicultural awareness, understanding of leadership theories, and personal and societal values. While the study demonstrated the positive influence of leadership training and education programs for involved students, it also showed a "halo effect" (Dugan et al., 2008, p. 478) among uninvolved students who reported higher gains in development at institutions with formal leadership programs compared to those without formal programs (Zimmerman-Oster & Burkhardt, 1999). This suggested that the presence of a formal program contributed to outcomes for students that did not even participate "through the creation of a cultural milieu that fostered conversation on the subject" (p. 478). The study also revealed that students' involvement in non-leadership related programs such as volunteering, internships, and class group projects also positively influenced student outcomes (Cress et al., 2001).

Utilizing path-analytic procedures, Smart et al. (2002) developed a causal model based on CIRP data collected between 1986 and 1990 from a national sample of 4,408 students along with a follow-up survey administered to a single-institution sample of 2,410 students. Results indicated holding positional leadership and the number of hours spent each week participating in clubs and organizations and socializing with friends (i.e., what the researchers considered "involvement activities") positively affected students' self-reported leadership ability, drive to achieve, popularity, and intellectual and social self-confidence.

Many of these studies are limited by an implicit assumption that leadership development programs affect students universally. In one of the literature's first studies that examined differential effects of leadership development programs on students, Kezar and Moriarty (2000) investigated differences in students' self-reported leadership ability and leadership-related skills across gender among African American and White students. The sample was derived from a CIRP dataset collected between 1987 and 1991 that included 9,731 students from 352 institutions. Leadership ability and leadership-related skills were based on the same single-item measures used in previous CIRP studies (A. W. Astin, 1993; Smart et al., 2002), including self-perceptions of leadership ability, communication skills (public speaking and writing skills), social and intellectual self-confidence, ability to influence others, and election to positional leadership roles. Both African American and White men self-reported higher leadership ability and leadership-related skills than African American and White women (Kezar & Moriarty, 2000). Other findings revealed that election to a positional role was a significant predictor of students' self-reported leadership ability for African American women, White women, and White men, but not for African American men. It also was a significant predictor of leadership-related skills for White men, but not for the other three student groups. Participation in a leadership class was a significant predictor of leadership ability for all four student groups. It also was a significant predictor of students' public speaking ability for White men and women and ability to influence for all student groups except for African American women. Additionally, active involvement in student organizations was a significant predictor of leadership ability only for White students, but not for African American students. It was not a significant predictor of any leadership-related skills for

African American men and women, but it was a significant predictor of students' public speaking ability for White men and women, self-confidence for White men, and ability to influence for White women. This study (2000) made an important and unique contribution to the literature by demonstrating that while involvement positively influences leadership outcomes, the leadership development process differs among various groups of students. This suggests that leadership as traditionally defined by position may not be equally helpful in developing leadership for all populations of students, nor do forms of involvement contribute to students' leadership equally.

While these studies (Cress et al., 2001; Haber & Komives, 2009; Kezar & Moriarty, 2000; Smart et al., 2002) indicated that co-curricular involvement, holding formal leadership roles, and participating in leadership programs positively contribute to college students' leadership development, many of these studies suffer from limitations in definition and measurement. In many, co-curricular involvement was defined broadly by aggregating all types of co-curricular experiences into a single variable. Additionally, a relatively small number of items were used to measure students' leadership development based on conceptions of leadership that are widely considered outdated and ineffective (A. W. Astin & Astin, 2000; Dugan, 2008b; Dugan & Komives, 2007; HERI, 1996; Kezar et al., 2006; Komives et al., 2007, 2009). For example, variables on the surveys that were used to classify students as leaders were defined by behaviors associated with leader-centric models that equated leadership with position, relying more heavily on positional leadership roles as a measure of co-curricular involvement than general membership (Cress et al., 2001; Kezar & Moriarty, 2000; Smart et al., 2002). As a result, this research perpetuated a hierarchical and power-structured approach to leadership

(Dugan, 2008b). Further, the outcome measures in many of these studies were designed to measure leadership-related skills, but not actual leadership, thus lacking any theoretical grounding. Lastly, interpretation of results from these studies should be made with caution, too, because many of these studies had high power and large sample sizes, making it more likely to find significant differences. If reported, effect sizes were small, suggesting limited practical significance of the findings.

Other studies (A. W. Astin & Sax, 1998; A. W. Astin et al., 1999, 2006; Kuh & Lund, 1994; Schuh & Laverty, 1983) investigated influences of specific types of organizations on leadership development. The ones reviewed in the following section (i.e., student government, community service or volunteering, and service-learning) were selected because they relate the most to students' political involvement. Often the terms civic and political engagement are used interchangeably in the literature (Chambers & Phelps, 1993, 1994; Colby et al., 2007; Hamrick, 1998; O'Connor, 2006; Zukin et al., 2006), and activities used to describe political involvement are often blurred with participation in student government, community service, and service-learning. While these activities often have political dimensions and are politically focused, not all of them constitute political engagement (Colby et al., 2007). Since relatively few studies specifically examined leadership outcomes of students involved in co-curricular, student-based political organizations, other related types of involvement could offer insight into the potential of positive leadership outcomes for politically involved students.

Student government. A. W. Astin's (1977) college impact study established the positive effects of student government participation on student outcomes. Involvement in student government was associated with greater than average increases in political

liberalism, hedonism, artistic interests, and status needs, as well as greater than average satisfaction with student friendships. Students who became actively involved in student government interacted frequently with their peers, which then contributed to changes in students' attitudes and behaviors (1977).

Kuh and Lund (1993) conducted a qualitative study on the benefits associated with participation in student government. They interviewed 60 student leaders regarding the personal changes that occurred as a result of student government involvement and compared them to other experiences during college. Student government experiences were thought to be more meaningful than other areas of involvement in terms of students' development of social and practical competence. They reported, "Student government was the single most potent experience associated with the development of practical competence" (Kuh & Lund, 1994, p. 10). Therefore, students were learning the skills often required by employers: decision-making; an understanding and appreciation of fundamental organizational structures and processes; experience with group process and teamwork such as leadership, cooperation, and followership; and written, oral, and visual communication. Kuh and Lund (1993) also compared the frequency with which outcomes were attributed to student government participation or other types of involvement such as peers, fraternity affairs, faculty interaction, residence halls, athletics, and academic major. Participation in student government positively correlated with students' development of confidence, sense of purpose, autonomy, and vocational competence more than other involvement types. However, student government participation negatively correlated with students' altruism, defined as "interest in the welfare of others, awareness of and empathy and respect for needs of others, tolerance and acceptance of people from racial, ethnic,

cultural, and religious backgrounds different from one's own" (p. 15). Student government participation was less important than other involvement types in terms of development of self-awareness, reflective thought, knowledge acquisition, and aesthetic appreciation.

Results of Kuh and Lund's (1993) study were consistent with other research that showed college graduates who were involved in student government often become involved in civic affairs after college. In a study of the long-term effects of student government involvement, Schuh and Laverty (1983) reported that students continue to stay aware and be involved in community and political activities after their terms end. A. W. Astin et al. (2006) also showed participation in student government was positively related to post-college outcomes, including students' political activism, political expression, commitment to political change, and overall political engagement. Still, it was not significantly correlated with future voting behavior. Additionally, participation in student government was positively correlated with students' self-efficacy, but having a pluralistic orientation and promoting racial understanding were not. Additionally, students' post-college involvement in volunteer work, working in communities, civic leadership, charitable giving, and involvement with their alma maters were positively correlated with participation in student government.

Community service or volunteerism. A. W. Astin and Sax (1998) studied the short-term effects of undergraduate participation in service activities in the areas of education, human needs, public safety, and the environment on 35 student developmental outcomes, including civic responsibility (12 measures), educational attainment/academic development (10 measures), and life skills (13 measures). Results showed that service

was positively correlated with students' sense of civic responsibility, academic development, and life skills, particularly as the time spent on service activities increased. Engagement in service is beneficial for students' development, regardless of the area of service performed.

While the 1998 A. W. Astin and Sax study examined the short-term effects of service participation, A. W. Astin et al. (1999) examined whether service participation during the undergraduate years had any lasting effects on students once they leave college. They employed a longitudinal study based on CIRP data collected at three points in time: when students first entered college in 1985, four years later in 1989, and nine years after entering college in 1994. Of the 39,440 students in the total sample, 27,064 students from 388 institutions completed both the pre and posttest surveys and 12,376 students from 209 institutions completed the pre, post, and follow-up surveys. Results revealed that the short-term effects of volunteer service participation in college persisted at least through the first five years after college, suggesting students develop a "habit of volunteering" (p. 196) during college that continues with them after they graduate. Volunteer service during college also was positively associated with attending graduate school, earning higher degrees, donating money to one's alma mater, and socializing with persons from different racial/ethnic groups. Additionally, it was positively associated with helping others in difficulty, participating in community action programs, participating in environmental cleanup programs, promoting racial understanding, and developing a meaningful philosophy of life in the years after college. Both studies (A. W. Astin & Sax, 1998; A. W. Astin et al., 1999) point out how volunteering encourages

students to become more socially responsible, more committed to serving their communities, more empowered, and more committed to education.

Service-learning. A. W. Astin led another team of researchers to examine whether students' participation in service-learning courses affects students' civic engagement, political engagement, and sense of civic responsibility after college (A. W. Astin et al., 2006). They compared the effects of participation in service-learning courses to "generic" (p. vi) volunteer community service based on 13 outcome measures. Community/civic engagement measures (5) were civic leadership, working with communities, volunteerism, charitable giving, and involvement with alma mater; political engagement measures (5) were general political engagement, political activism, political expression, commitment to political change, and voting behavior; and civic values/goals (3) measures by students' pluralistic orientation, self-efficacy, and the goal of promoting racial understanding. Results indicated that participating in a service-learning course during college had positive effects on nine of the 13 outcomes (all except involvement with alma mater and the three civic values/goals). However, six of these nine effects were attributed to the effects of generic service. Therefore, the unique positive effects of service-learning independent of generic service were associated with three post-college outcomes: civic leadership, charitable giving, and overall political engagement.

Research on Co-Curricular Involvement Effects Using the Social Change Model of Leadership Development as a Theoretical Frame

While these studies (A. W. Astin & Sax, 1998; A. W. Astin et al., 1999, 2006; Kuh & Lund, 1994; Schuh & Laverty, 1983) examined the effects of different types of student involvement in co-curricular group experiences, many of them are constrained by

limitations in methodology similar to the studies reviewed earlier on the effects of co-curricular involvement on students' leadership development. To address these issues, emerging in the literature are studies (e.g., Chowdhry, 2010; Dugan, 2006a, 2006b, 2008a; Dugan & Komives, 2007, 2010; Haber & Komives, 2009; Page, 2010; Rosch, 2007) that use theoretically-derived measures of leadership to explore the influence of co-curricular involvement on leadership development. Particularly, these studies conceive leadership as socially responsible and based on the theoretical framework of the SCM (HERI, 1996), which is consistent with current conceptions of leadership that promote socially responsible leadership and social change. Leadership outcomes are measured by the theoretically-derived Socially Responsible Leadership scale [SRLS] (Tyree, 1998). Additionally, many of these studies are consistent with other student development research that uses A. W. Astin's (1991) inputs-environments-outputs (I-E-O) college impact model as their conceptual framework. Hence, the conclusions that could be drawn from this body of research are strengthened by their grounding in these theoretical and conceptual frameworks.

These studies utilize data obtained through the Multi-Institutional Study of Leadership (MSL), which is one of the largest studies of college student leadership to date (Center for Student Studies, n.d.), and is focused on the influence of colleges and universities in developing college students' capacity for socially responsible leadership as described by the SCM (Dugan & Komives, 2007). The MSL began in 2006 as a national research program, but expanded in 2009 to countries outside of the U.S. for its second round of data collection. It was conducted annually from 2010 to 2012, but it will be conducted on a three-year cycle beginning in 2015. Several studies have been conducted

using the 2006 MSL dataset (Bonnet, 2008; Dugan, 2006a, 2006b, 2008a; Dugan & Komives, 2007, 2010; Durham Hynes, 2009; Fincher, 2008; Gasiorski, 2009; Haber, 2006; Hershey, 2007; Owen, 2008; Page, 2010; Rosch, 2007; Shalka, 2008; Slife, 2007; Smist, 2006; Wilson, 2009). The 2009 dataset was not made available for analysis until recently. Few secondary studies of the dataset (e.g., Chowdhry, 2010) have been disseminated up to this point.

More than 50,000 students completed the survey out of 165,000 students sampled at 52 institutions in the 2006 MSL. Key results, reported by Dugan and Komives (2007, 2010), demonstrated the strong influence of pre-college experiences and pre-college measures on students' socially responsible leadership development. Findings indicated that experiences during college, including faculty mentoring, campus involvement in clubs and organizations, discussions with peers about socio-cultural issues, and participation in community service, were major influences in students' leadership outcomes. Additionally, positional leadership roles and formal leadership programs had positive effects on students' socially responsible leadership development.

Dugan (2006a, 2006b) sampled 859 undergraduate students at a large, doctoral/research intensive university in the western U.S. participating in 60 randomly selected college classes. Results indicated that students' involvement experiences may significantly contribute to developmental gains in socially responsible leadership. Different types of involvement were associated with different scores of students' socially responsible leadership development as measured by the SRLS. For instance, students' involvement in community service was the most influential for developing socially responsible leadership. Positional leadership roles also had positive effects, but

involvement in student organizations and formal leadership programs demonstrated positive but limited influence on students' leadership development. Involvement in fraternities and sororities also were positively related to students' socially responsible leadership capacity. Overall, students' sense of citizenship was the most positively affected through involvement experiences, suggesting that involvement of any kind should help students recognize the need to connect leadership to the broader needs of the community. Dugan (2006a) also examined leadership outcomes by gender for students involved in fraternities and sororities. Findings showed that women reported significantly higher mean scores than men across six of the eight SCM measures (all but collaboration and controversy with civility). This supported past research showing gender differences in leadership (Boatwright & Egidio, 2003; Eagly et al., 2003; Romano, 1996), suggesting women's leadership styles tend to be more collaborative and relational in nature compared to those by men.

Dugan (2008a) examined the relationship between membership in fraternities and sororities and socially responsible leadership with a national sample of more than 8,700 students at 52 institutions. Mean scores were computed for students' capacity for socially responsible leadership for each of the eight leadership measures. Fraternity and sorority members scored highest on the leadership value of commitment and lowest on the capacity to navigate change. Results also showed leadership differences based on gender. Students involved in sororities scored statistically significantly higher than students involved in fraternities across all of the leadership measures except for change. While Dugan's (2008a) research provides "important baseline data" (p. 22) on students involved in Greek student organizations, it is unknown whether the differences in scores were due

to actual gender differences in leadership or organizational differences. Moreover, results are limited by potentially confounding variables such as precollege experiences, demographic background variables other than gender, and other collegiate experiences that were not examined in the study. It is unknown from this research whether these variables influenced student leadership outcomes in addition to Greek organization membership.

In a study at a large, comprehensive private university in the East, Rosch (2007) investigated the relationship between college students' campus involvement and self-reported capacities for socially responsible leadership. Specific types of involvement (i.e., amount of participation in co-curricular activities; activity level in conducting community service as part of a class, student organization, or on one's own; on- and off-campus employment; and activity level in formal leadership programs and activities) were examined for their potential influences on students' leadership as well as students' demographic background (i.e., gender, race, and class year). The stratified random sample included 3,243 students proportional to the demographic makeup of the campus. Findings demonstrated that co-curricular involvement was the most significant predictor of students' self-reported capacity of socially responsible leadership. Participation in campus-registered student organizations and community service were significant predictors of SRLS, more than on-campus employment or participation in formalized, campus-based leadership activities and training programs. Students' class standing was also a predictor, but this effect disappeared after controlling for campus involvement. Findings suggest that these activities could act as a catalyst for the development of socially responsible leadership skills for a broad variety of students, regardless of

background. After analyzing differential effects of campus involvement, results showed that gender was a significant predictor of students' socially responsible leadership. Race was not a predictor. While this finding confirms previous research (Kezar & Moriarty, 2000) that states gender is an influential factor for leadership, it is inconsistent with the same research that found that men tend to consider themselves strong leaders. However, this discrepancy could have been due to different methods of measurement for leadership.

A significant contribution from Rosch's (2007) study was how he constructed an independent variable representing students' co-curricular involvement based on items contained on the MSL instrument: involvement in campus-sponsored organizations or activities, involvement in community service activities on or off campus, participation in leadership training and education, and on-campus employment. These variables included quantifications of students' amount of time spent doing these activities, which was significant because it allowed for a more precise examination of involvement based on A. W. Astin's (1984) involvement theory. A limitation to the study, however, was that it did not control for precollege experiences such as involvement in high school clubs, sports, or service. Findings showed co-curricular involvement during college was a significant predictor of students' capacity for socially responsible leadership, but it is unknown if that finding would hold up statistically if precollege experiences were taken into account. Further investigation is needed to examine the 88% of unexplained variance in Rosch's (2007) study.

Page (2010) examined the relationship between student activism and students' socially responsible leadership using a national sample of 12,510 undergraduate students. He defined activism as "engaging in behavior for the purpose of creating change,

inclusive of both individual involvement and group membership or action, [that occurs on- and off-campus]" (p. 9). Activist behaviors he studied ranged from "passive awareness" (p. 65), including an awareness of local, national, or global issues, to "participatory activism" (p. 65), such as contacting an elected official, newspaper, magazine, radio, or television talk show to express an opinion; participating in a protest, rally, march, or demonstration; signing a petition; emailing others about a social or political issue; or participating in a boycott or buycott. Results indicated that passive awareness activism significantly contributed to all measures of students' self-reported socially responsible leadership development. Participatory activism significantly contributed to the citizenship leadership measure. Additionally, participation and holding a leadership position in on- and off-campus organizations, community service, and internships emerged as significant predictors of self-reported socially responsible leadership development.

Chowdhry (2010) examined the relationship between students' co-curricular involvement in service, advocacy, and identity-based organizations and students' perceived sense of civic responsibility and frequency of engagement in social change behaviors. Using the 2009 MSL dataset consisting of 115,632 students, he examined a subsample of 44,911 students based on their self-reported co-curricular involvement. He sorted the sample into five subgroups: (a) students involved in service organizations and any other organization type other than advocacy or identity-based; (b) students involved in advocacy organizations and any other organization type other than service or identity-based; (c) students involved in identity-based organizations and any other organization type other than service or advocacy; (d) students involved in at least two different

organization types among service, identity, or identity-based organizations; and (e) students not involved in any of the three organization types. He measured students' sense of civic responsibility using two of the 11 SRLS-R3 citizenship subscale items. Students' frequency of social change behaviors was measured by 10 Likert-scaled items on the Social Change Behaviors scale (SCBS), which was developed for the MSL-SS. Results showed that students involved in multiple organizations had the highest perceived sense of civic responsibility and engaged in social change behaviors more frequently than those who participated exclusively in one of the organizations or none at all. Students in identity-based organizations had a lower sense of civic responsibility and engaged in social change behaviors less frequently than the other subgroups, except for students not involved in any of the three organizations who scored the lowest of all subgroups. These findings indicate involvement in these types of organizations relate to students' sense of civic responsibility, suggesting that students' identification with civic responsibilities may be related to their aspirations for joining organizations that are more oriented towards social change. Further, findings suggest that students' involvement in multiple organizations may have more opportunities to engage in social change behaviors. While these studies (Chowdhry, 2010; Page, 2010) were significant in that they examined the effects of civic and political engagement activities on students' leadership development, the activities were not distinct from each other. Such blurring of definitional boundaries make it difficult to ascertain which outcomes resulted from overtly political activities or which ones were shared.

These MSL studies (Chowdhry, 2010; Dugan, 2006a, 2006b, 2008a; Dugan & Komives, 2007, 2010; Haber & Komives, 2009; Page, 2010; Rosch, 2007) demonstrate

that different forms of co-curricular involvement relate to students' self-reported socially responsible leadership development as defined by the SCM. For example, students' leadership development was positively related to participation in student organizations, fraternities and sororities, community service, and activism. Additionally, precollege experiences and socially responsible leadership before college were strongly associated with leadership development. Collegiate experiences such as holding positional leadership roles and participating in formal leadership training and education programs also were positively associated with students' leadership development. Gender also was found to be a significant predictor of leadership development, suggesting female students had higher socially responsible leadership scores than male students. These studies indicate that co-curricular involvement can be a powerful platform for developing socially responsible leadership development, but they leave open the question of whether students' involvement in political organizations as well as other student demographic characteristics also relate to students' socially responsible leadership development.

Definitions of Student Political Involvement

As this study examines the relationship between students' involvement in co-curricular, student-based political organizations and their capacities for socially responsible leadership, it is important to define political involvement and co-curricular, political organizations. This section analyzes how scholars have attempted to define these terms and how such literature informs the way they were defined in this study.

Student Political Involvement Defined in the Literature

Applying a single description of co-curricular involvement in student-based political organizations is no easy task. While such organizations are not always explicitly

studied, the activities and behaviors of students who are involved in them are described within the civic and political engagement literature. Often the terms civic and political engagement are used interchangeably in the literature and definitional boundaries used to describe their related activities and behaviors are frequently blurred, resulting in inconsistent interpretations of which activities and behaviors are considered political (A. W. Astin, 1993; A. W. Astin et al., 2006; Brady, 1999; Chowdhry, 2010; Colby et al., 2003, 2007; Gibson, 2001; Komives et al., 2009; Long, 2002; Longo, 2004; O'Connor, 2006; Page, 2010; Verba & Nie, 1972; Vogelgesang & Astin, 2000, 2005; Wellman, 1999; Zukin et al., 2006). As Colby et al. (2003) explains,

> It is sometimes difficult to distinguish between organizations that focus on service and those that take an overtly political approach, because the degree of focus on systemic issues and policy solutions is a continuum and may even fluctuate over time with the same organization. For some clubs, however, the focus is clearly political. Many campuses have political clubs tied to specific political organizations in the surrounding community or state or linked to national political parties. (p. 247)

From the perspective of "public engagement" (Zukin et al., 2006, p. 50), people can participate in public life in a variety of ways, from donating time at a homeless shelter, to working for a candidate for elective office, to calling a local official to complain about street repairs in one's neighborhood (2006). Verba and Nie (1972) identified four dimensions of public engagement: voting, election campaigns activity, contacting public officials, and cooperative activity (e.g., working with others to solve a community problem). They were among the first scholars to recognize that civic behavior

was separate from more explicitly political activities. Brady (1999) expanded this work and distinguished between electoral (voting and campaign activity) and nonelectoral activities (informal community work, contacting elites, organizational memberships, attending meetings, signing petitions, and participating in demonstrations or boycotts). Putnam (2000) distinguished between what he called cooperative activity, which was defined similarly to Verba and Nie (1972), and expressive forms of behavior such as writing letters or public affairs.

Komives et al. (2009) point out that for some people, political engagement means voting and holding elected officials accountable to what the people want by circulating petitions or organizing or attending protests, marches, or demonstrations. For others, it means being an active member of community organizations, creating new initiatives to make a positive difference for the common good. For many college students, political involvement is fostered through participation in student political groups on campus.

Consistent with past research (Verba et al., 1995), Zukin et al. (2006) differentiated political engagement from civic engagement based on the goals, targets of activity, level of effort, and the institutions or places in which they are situated. They defined political engagement as an "activity that has the intent or effect of influencing government action – either directly by affecting the making or implementation of public policy or indirectly by influencing the selection of people who makes those policies" (Zukin et al., 2006, p. 6). For most Americans, this means participating in the electoral process, usually by voting. By contrast, civic engagement is "organized voluntary activity focused on problem solving and helping others" (p. 7). Those who engage civically aim "at achieving a public good, but usually through hands-on work in cooperation with

others" (p. 51). This type of engagement usually occurs within nongovernmental organizations and rarely in electoral politics (2006). Volunteer work in one's community is a clear example of civic engagement.

In a study of the effects of college students' participation in service-learning, A. W. Astin et al. (2006) differentiated community/civic engagement from political engagement. They defined civic engagement as civic leadership, working with communities, volunteerism, charitable giving, and involvement with one's alma mater. Political engagement was defined as its four subfactors: political activism, political expression, commitment to political/social change, and voting behavior.

In the Political Engagement Project (PEP), scholars from the Carnegie Foundation for the Advancement of Teaching examined 21 curricular and co-curricular programs at colleges and universities across the country for three years, identifying the most effective approaches for fostering college students' political engagement (Colby et al., 2007). A view of political engagement wider than those of previous scholars (Putnam, 2000; Verba & Nie, 1972; Verba et al., 1995; Zukin et al., 2006) was adopted for this study. They defined political activities as electoral in nature such as voting, participating in campaigns or political parties, contacting elected officials, or running for office. However, they did not limit political activities to only those. They argued that political engagement could include direct, local, or "nonconventional" activities. For example, these could involve working informally with others to solve a community problem; serving in neighborhood organizations and groups that have a stake in political policies or outcomes; financially supporting political causes or candidates; participating in public forums on social issues; discussing political issues with others or attempting to influence

others' political opinions; writing politically-oriented journals or blogs, signing petitions, participating in various forms of policy advocacy and lobbying; raising awareness about social issues or mobilizing others to get involved or take action through rallies, protests, sit-ins, street theater, or public awareness campaigns; or participating in collective consumer efforts aimed at achieving political goals such as boycotts or buycotts (2007). Their definition recognizes political voice and expression that goes beyond pursuing political interests only in the electoral arena.

Despite its broad scope, PEP researchers considered activities as political only if they were intended and structured to contribute to broad social or institutional change, either by identifying one's actions with broader movements working on these issues, participating in related groups, supporting related causes, or selecting leaders who hold compatible views on these issues. What makes an activity distinctly political instead of civic rests on the nature of the goals or intentions underlying the activity (2007). Arguing for a broader conception of political involvement, they suggested political activities "have goals connected to individual and group values, power, and choice or agency, and the desire to sustain or change the shared values, practices, and shape collective life" (p. 32). As such, they did not consider common forms of community service, such as tutoring children, cleaning up a public beach, volunteering at a senior center, or stocking shelves in a food pantry, as political activities. They also excluded organized social activities like book clubs, athletic leagues, or religious groups unless they explicitly pursue political goals. Activities involving individual lifestyle choices and personal commitments, such as energy conservation, recycling, or organic food consumption or gardening, also were excluded.

Frustrated with conventional politics and the ways in which scholars and observers commonly define political activities, students have argued that the portrayal of the disengaged college student was misleading and non-characteristic of the modern college student because researchers commonly do not recognize or measure other forms of political engagement (Long, 2002; Longo, 2004; Longo & Meyer, 2006). At the 2001 Wingspread Summit on Student Civic Engagement conference, 33 upperclass students from 27 colleges and universities identified three forms of political engagement: conventional politics, community service, and service politics (Long, 2002; Longo, 2004). Political engagement, according to these students, goes beyond voting. Certain activities within the realm of community service can be considered political such as personal reflection/inner development, thinking, reading, silent protest, dialogue and relationship building, sharing knowledge, project management, and formal organization that brings people together. Additionally, political engagement can be manifested through cultural and spiritual forms of expression such as music, coffee houses, poetry, and alternative newspapers.

Other studies link student political engagement with student advocacy and activism (A. W. Astin, 1993; Chambers & Phelps, 1993, 1994; Chowdhry, 2010; Page, 2010). In A. W. Astin's (1993) foundational research on student involvement, the CIRP survey he used measured political behaviors as those considered to be of a "social activist," consisting of "helping others in difficulty," "influencing social values," "participating in community action programs," and "influencing the political structure" (p. 108). His choice of definitional parameters points to connections between political and advocacy organizations. In another study (Chambers & Phelps, 1993), student

activism was defined as "the active participation of individuals in group behavior for the purpose of creating change – in attitudes, knowledge, behavior, and/or symbols" (p. 20). Adopting a broad, inclusive view, they argue that forms of student political engagement are activist in nature. Wagner and Owen (2006) describe political involvement and advocacy efforts as distinct from direct community service. They defined political involvement as participating in government processes, such as campaigning and voting; keeping informed about issues in the local, national, and international communities in order to vote responsibly; and engaging in discourse and debate about current social issues. Advocacy/education efforts involve using various modes of persuasion to convince government or corporate decision makers to make choices that will benefit communities, raising public awareness of social issues by delivering speeches to community groups, distributing written materials to the general public, or providing educational activities in schools. These activities are distinct from community service, which they defined as giving personal time and energy to address immediate community needs such as tutoring, serving food at a shelter, building or repairing homes, and neighborhood or park clean-ups.

The issue that definitional boundaries between civic engagement, political involvement, and activism are blurred is acknowledged in the literature (Chambers & Phelps, 1993, 1994; Colby et al., 2007; Hamrick, 1998; O'Connor, 2006; Zukin et al., 2006). Political and civic activities are implied to be distinct and separate, but are not. Activities in one domain are correlated with those in other domains, suggesting that the boundaries between them are permeable. For example, those who are involved in civic affairs may use the same tools that political activists use to send and convey messages

about their views to policymakers, interests groups, and other citizens and constituents. Further, no one form of involvement is more important than the other. A thriving democracy requires both types. However, civic engagement cannot substitute for political engagement or vice versa. They contribute to each other and the skills they require often overlap, but the sources of motivation for people who engage in them are often different as well as the activities frequently take place in different settings and contexts. They often serve different purposes and constituents (Colby et al., 2007; Zukin et al., 2006).

Student Political Involvement Defined in this Study

Recognizing the multifaceted nature of civic and political engagement, this study adopts a broad conception of political involvement: participation in co-curricular student organizations that are political or advocacy in nature. It is logical to study the groups that have missions, goals, and purposes that are explicitly political. Additionally, advocacy organizations, by definition, involve influencing others for change. As research has shown, "the content of the student group matters" (Zukin et al., 2006, p. 145). Organizations that take part in overt political and advocacy activities are examined. Organizations that are less clearly defined as political and consequently are excluded from the political involvement definition are community service organizations, identity-based organizations, and student governance groups. The missions, goals, and activities of these kinds of organizations vary widely. Many organizations strive to achieve political goals and engage in advocacy efforts; however, many are non-politically oriented. For example, some people believe community service should focus on philanthropy and charity while others are focused on an agenda of social change (Westheimer & Kahne, 2004). These discrepancies could relate to how students

conceptualize and define their involvement. Definitional boundaries blur among all of these organizations, making it difficult to ascertain which organizations should be classified as political versus non-political. Although examples of organizations were provided on the research instrument used in this study, respondents were left to define for themselves which organizations they considered political or advocacy in nature. In order to draw the most precise inferences about political involvement, only organizations described explicitly on the instrument as political or advocacy were considered political. All other types of organizations were, for the purposes of this study, considered non-political.

Chapter Summary

Recent trends suggest that college students are increasingly more active in voting and other political engagement activities. With steady increases in the proportion of students committed to social and civic responsibility, incoming students are engaged politically and participated in political discourse more than any other time in the past 40 years (Pryor et al., 2009). Despite declines in political engagement nationwide over the past 30 years, students are arriving on college and university campuses with higher rates of experience in volunteering, community service, and political engagement (Hurtado & Pryor, 2007; Pryor et al., 2009), leading some to conclude that college students are among the most engaged of all citizens (Lopez & Kiesa, 2009). Intertwined with political involvement is leadership. As leadership theories shift to the postindustrial paradigm of leadership, leadership models increasingly recognize leadership as a group process based on relationships, ethics, and sustainable engagement with society. As emphasis on students' leadership development continues to grow, the social change model of

leadership emerges as one of the most widely used models of leadership development that simultaneously meets the needs of college students and the demands of modern leadership. Research demonstrates that various forms of co-curricular involvement lead to different outcomes, including students' leadership development, and the leadership development process differs among various groups of students. While studies have looked at political and civic engagement through students' involvement in student government, community service, and service-learning, less understood is the relationship between students' co-curricular involvement in student-based political organizations and socially responsible leadership development. That relationship is the explicit focus of this study.

Tables and Figures

Table 2.1 *Leadership Paradigms*

Industrial Paradigm	Postindustrial Paradigm
Individual	Relationship
Good management	Process distinct from management, good or bad
Leader behaviors/traits	Leaders and collaborators interact in a relationship
Do the leader's wishes	Do what both the leaders and collaborators wish
Pursue any organizational goals	Pursue purpose that intend significant changes
Use any legitimate behaviors	Use influence behaviors only
Practiced continuously	Practiced episodically

Note. Descriptions derived from *"Moving from individual to relationship: A postindustrial paradigm,"* by J. C. Rost, 1997, *Journal of Leadership Studies, 4*(4), 3-16.

Table 2.2 *Social Change Model of Leadership Development Constructs*

Level/Domain	Value	Definition
Individual	Consciousness of Self	Awareness of personal beliefs, values, attitudes, and emotions that motivate one to take action
	Congruence	Ability to think, feel, and behave with consistency, genuineness, authenticity, and honesty towards others
	Commitment	Intrinsic passion, energy, and purposeful investment in a person or idea, in terms of intensity and duration; one's energy to serve the group and its goals; having commitment from within or creating an environment that supports an individual's passions
Group	Collaboration	Capacity to work with others in a common effort; sharing responsibility, authority, and accountability; capitalizing on the diversity and strengths of the relationships and interconnections of individuals involved in collective efforts for social change to generate creative solutions and actions
	Common Purpose	Capacity to work with a group to construct and attain shared responsibility toward collective aims, values, and vision; one's ability to engage in and involve others in building a group's vision and purpose
	Controversy with Civility	Capacity to recognize that differences in perspective are inevitable and to navigate respectful solutions to those differences; believing that differences must be aired openly but with civility; believing that open, critical, and civic discourse can lead to new, creative solutions
Society/ Community	Citizenship	Capacity to become responsibly connected to one's community/society, actively working toward change to benefit others though care, service, social responsibility, and community involvement; recognizing members of communities as interdependent, not independent
The "Hub" of the SCM and Ultimate Goal of Leadership	Change	Capacity for positive impact on a group and the larger society; believing in the importance of making a better world and society for oneself and others; improving the status quo, creating a better world, and demonstrating a comfort with transition and ambiguity in the process of change

Note. Descriptions derived from *Leadership for a better world: Understanding the social change model of leadership development*, by S. R. Komives, W. Wagner, & Associates, 2009. San Francisco, CA: Jossey-Bass.

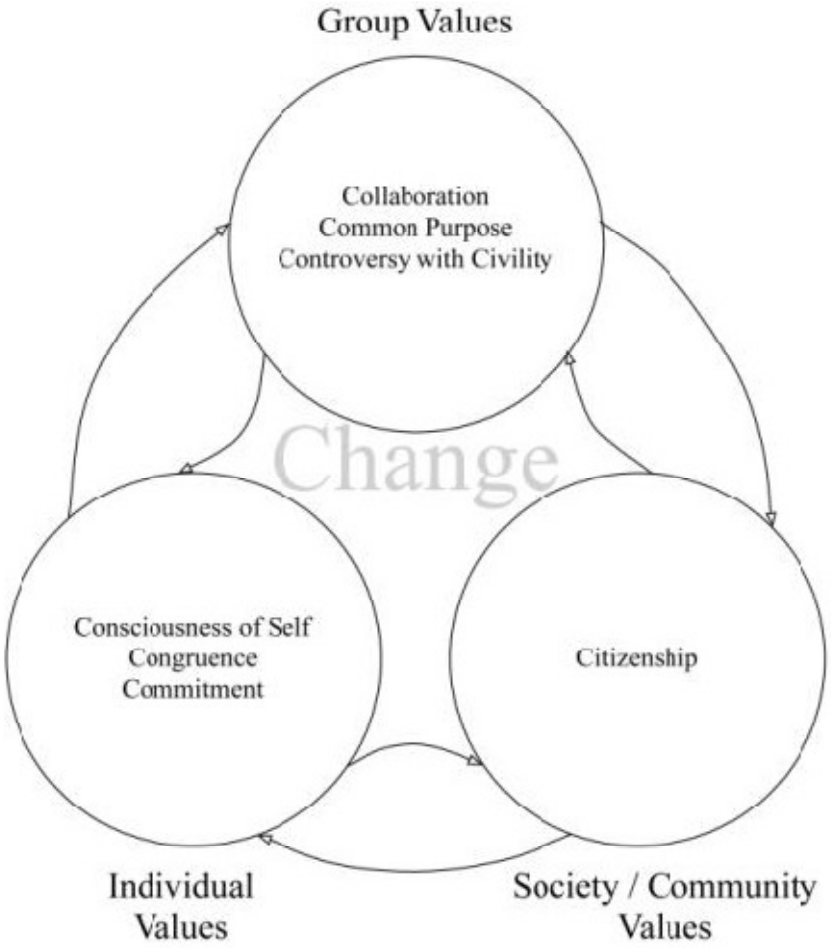

Figure 2.1 Social Change Model of Leadership Development. Adapted from *"A social change model of leadership development"* (3rd ed., p. 20), by Higher Education Research Institute [HERI]. Copyright © 1996, National Clearinghouse for Leadership Programs. Reprinted with permission of the National Clearinghouse for Leadership Programs.

CHAPTER THREE

METHODOLOGY

This chapter provides detailed description of the methodology employed in the present study. First, the research questions are restated followed by discussion of the research design, including background information about the national project informing the study, instrumentation, data collection, and sampling strategies. Then, the conceptual and theoretical frameworks are presented. Following are detailed explanations of the measures and variables utilized in the study. The chapter concludes with information about the analytic procedures employed to answer the research questions.

Research Questions

The purpose of the present study was to investigate the relationship between college students' political involvement and their capacities for socially responsible leadership. It addressed the influences of students' demographic characteristics, precollege experiences, and collegiate experiences on students' socially responsible leadership development during college based on their political involvement. Political involvement was defined as participation in co-curricular, campus-based student organizations that were political or advocacy in nature as self-reported on the 2009 Multi-Institutional Study of Leadership Student Survey (MSL-SS). Respondents in the sample were sorted into four subgroups based on students' self-reported involvement in political organizations, non-political organizations, both political/non-political organizations, and no student organizations (i.e., not involved). Socially responsible leadership was measured by students' self-reported scores on the Socially Responsible Leadership scale – Revised 3 (SRLS-R3) on the MSL-SS.

The following research questions were addressed in the present study:

1. Do politically involved students differ from students involved in non-political organizations, involved in both political and non-political organizations, and not involved in any organizations, in terms of demographic characteristics, precollege experiences, capacities for socially responsible leadership prior to entering college, and collegiate experiences?
2. Do politically involved students differ from students involved in non-political organizations, involved in both political and non-political organizations, and not involved in any organizations, in terms of their reported levels of socially responsible leadership development capacity, as measured by the Socially Responsible Leadership scale?
3. How much variance in socially responsible leadership development is explained by students' political involvement and other collegiate experiences, after controlling for students' demographic characteristics, precollege experiences, and capacities for socially responsible leadership prior to entering college? Which of these characteristics and experiences best predict socially responsible leadership development?

Research Design

The current study was a cross-sectional, quantitative research design based upon secondary analysis of data collected as part of the Multi-Institutional Study of Leadership (MSL), a national project examining influences on college student leadership development. The MSL dataset was selected because it provided a large, multi-

institutional sample of self-reported data from undergraduate students and provided a rich data source on outcomes associated with student leadership development activities. The dataset also provided a breadth of leadership development outcomes data across a variety of variables, including students' demographic and academic background characteristics, precollege experiences, college involvement, and theoretically-derived measures of socially responsible leadership development. Measures of socially responsible leadership development were based on the social change model of leadership development (SCM) (HERI, 1996). The SCM was selected for the MSL for its broad applicability and recognition as one of the most well known student leadership models (Dugan & Komives, 2007, 2010; Komives et al., 2009). The model is designed specifically for college students, is congruent with contemporary conceptualizations of leadership, and is nationally recognized for the degree to which it influences collegiate leadership programs (Kezar et al., 2006).

Multi-Institutional Study of Leadership

The MSL is one of the largest studies of college student leadership to date (Center for Student Studies, n.d.). It began as a national research program, but expanded in 2009 to countries outside of the U.S. The MSL was coordinated in partnership with the National Clearinghouse for Leadership Programs and directed by a research team consisting of faculty, student affairs professionals, and graduate students at the University of Maryland College Park.

The purpose of the MSL was to explore the role of higher education in developing college students' leadership capacities, specifically with the aim to understand students' leadership development, identify conditions in the higher education environment that

contribute most significantly to leadership outcomes, and examine the effects of college environments on leadership outcomes (Dugan & Komives, 2007; Komives et al., 2009). It was theoretically grounded in the SCM that views leadership as inherently tied to social responsibility and manifested in creating change that benefits the common good (HERI, 1996). The model is predicated on increasing individuals' levels of self-knowledge and group-oriented skills. This is accomplished by fostering growth across eight values that interact synergistically across three dimensions: individual (consciousness of self, congruence, and commitment), group (collaboration, common purpose, controversy with civility), societal/community (citizenship), and change. More details on the SCM are provided later in the chapter.

Instrumentation

The instrument utilized in this study was the 2009 Multi-Institutional Study of Leadership Student Survey (MSL-SS) (see Appendix A). Leadership development was measured by the Socially Responsible Leadership Scale – Revised Version 3 (SRLS-R3) (Dugan & Komives, 2009; Tyree, 1998), which was the core of the MSL-SS. The remainder of the MSL-SS solicited data related to students' demographic and academic background characteristics (e.g., gender, enrollment status, citizenship), precollege characteristics (e.g., precollege involvement in community service, precollege leadership training), and collegiate experiences (e.g., involvement in community service, mentoring relationships, formal leadership training). The MSL-SS relied on students' self-reports for all its items.

After its first dissemination to a national sample of college undergraduate students in 2006, the MSL-SS was revised for its second national dissemination in 2009. The 2009

instrument retained the same core measures as the initial 2006 instrument, but it was refined with new items and scales (Komives et al., 2009). For example, measures of the citizenship construct were expanded, and a 10-item Social Change Behaviors scale was added. Prior to dissemination, the new instrument was piloted in June and October 2008. Items in the instrument were correlated with the Marlowe-Crowne Social Desirability scale (Crowne & Marlowe, 1960). Items that correlated highly with the scale were removed from the MSL-SS (as reported in Dugan & Komives, 2009) in order to enhance accuracy and minimize social desirability bias in responses. Social desirability bias is the tendency of respondents to answer questionnaire items in a manner that would be viewed favorably by others. Additionally, internal reliability of the scales on the 2009 MSL-SS was tested, yielding Cronbach alphas of .80 or .90 for most (as reported in Dugan & Komives, 2009). Beginning in 2010, the MSL-SS was conducted annually through 2012. In the future, the MSL-SS will be conducted on a three-year cycle beginning in 2015.

Because reliability can vary depending on the sample on which it is estimated (Krathwohl, 2004; Pallant, 2007), reliability was tested with this study's sample. Reliability is a characteristic of an instrument, used in a specific way with a specific population sampled. It is not a fixed characteristic. Responses to items on an instrument can be affected by various factors such as how items are perceived by respondents, poor testing conditions, or respondents being distracted while responding (Krathwohl, 2004). Therefore, it was necessary to conduct reliability tests to make sure each of the MSL-SS scales utilized in this study had adequate internal reliability. Further information on the methods and results of these tests is provided in the Conceptual and Theoretical Frameworks section of this chapter.

Data Collection

The present study utilized data collected in the 2009 MSL administration. Human subjects approval was obtained for the overall MSL study at the institution of the study's principle investigators as well as at each participating institution. Data collection occurred between January and April 2009. Each participating institution had a specific window of time during this period when the MSL-SS could be administered. Each institution selected a three-week period of time that best fit its academic calendar with the recommendation to administer it at least two weeks after the beginning of the second semester, but prior to midterm exams. It was intended that data collection take place during this time to give first-year and transfer students sufficient time to adjust to their campus environments (Shalka, 2008).

The fact that leadership development was assessed after only one semester posed a potential limitation to the results of this research, particularly for first-year students and transfer students. The research literature was consulted to see if authors of other MSL studies identified this as a bias and limited their samples only to seniors. One study (Dugan & Komives, 2010) was found in which the MSL dataset was reduced to only seniors in order to allow "for a more targeted examination of perceived change over time" (p. 530). Because results in this study were not compared for first-year students and seniors, it is unknown whether their findings would have differed if their sample included all class levels of students instead of only seniors. More than a dozen other studies have been published analyzing MSL data sampling all class levels of students (Dugan, 2006a, 2006b; Dugan & Komives, 2007; Haber & Komives, 2009) as well as numerous theses and dissertations (Bonnet, 2008; Chowdhry, 2010; Dugan, 2008b; Durham Hynes, 2009,

Fincher, 2008; Gasiorski, 2009; Gerhardt, 2008; Haber, 2006; Hershey, 2007; Owen, 2008; Rosch, 2007; Shalka, 2008; Slife, 2007; Smist, 2006; Wilson, 2009). Moreover, the MSL data are analyzed and widely utilized at institutions across the country (Komives et al., 2009). This consistency reflected in the body of literature supported this study's choice to sample all class levels of students. Whether sampling all class levels of students actually biased the results in this study is addressed later in Chapter Five.

Distribution of the MSL-SS was conducted through a Web-based format administered by the independent research organization, Center for Student Studies (CSS), a division of the Survey Science Group, LLC. Each participating institution had a point of contact that collaborated with the CSS on the administration of the Web-based questionnaire. Each institution received a detailed guidebook, codebook, consent forms, and Institutional Review Board approval forms to ensure a uniform process across all participating institutions. Questions and format of the MSL-SS were consistent among all participating institutions, but each campus had the option of adding 20 additional, customized questions to the MSL-SS. These procedures were implemented as a means of ensuring standardization to reduce the potential for bias, missing data, or other data errors. These data cleaning procedures were used to ensure the quality and accuracy of responses (Dugan et al., 2008).

Students were invited to take the MSL-SS through an electronic mail invitation. Depending on the timeframe during which the student completed the questionnaire, up to three e-mail reminders were sent during the three-week period when the questionnaire was made available. Students were not contacted again unless they were randomly selected to win a prize or if they did not respond to the questionnaire. Upon completion

of the questionnaire, students were thanked and provided with the contact information for their institution's MSL point-person should they have follow-up questions. According to MSL principal investigators (PIs) (Komives et al., 2009), it took students approximately 20 minutes to complete the questionnaire.

Several incentives were offered during the data collection period in an effort to increase response rates. All respondents were entered automatically into a random drawing for prizes and incentives. Students' ability to win was not based on their responses, but completion of the questionnaire. Some prizes were offered from the national MSL office, but others were offered by individual participating institutions that opted to offer their own incentives to students on their respective campuses.

Participation in the study was based on voluntary consent, free from coercion or undue influence. This was made explicit to all contacted students. They were required to indicate their informed consent before proceeding to the questionnaire and were informed there was no penalty or loss of benefits should they choose not to participate. Students were allowed to withdraw at any time or decline to answer specific questions. They were not forced to respond to a question before moving to the next one.

All collected data were stored within a secure website at CSS. All individually identifiable information were deleted from the database of records and replaced with random identifying numbers, which were 6-digit numeric codes. For the present study, data analysis took place with these codes and no other identifiable information. This anonymized dataset was made available after formal, written request to the MSL principle investigators at the University of Maryland College Park.

Sampling Strategies

In the following section, two sampling strategies that were utilized in this study are explained. First, the method of sampling used in the MSL is detailed, comprising the original pool from which the current study drew respondents. Second, the specific sampling strategy utilized in this study is discussed.

Multi-Institutional Study of Leadership sample. A two-phase sampling strategy was utilized to best capture the diversity of institutions and students represented in higher education across the country (Dugan & Komives, 2009). First, to ensure maximum variation across institutional types, purposeful sampling was employed to select the colleges and universities that would participate in the MSL. An open call to institutions was sent in Spring and Summer 2008 via electronic listservs that targeted professionals with interests in leadership education, including the National Association of Student Personnel Administration Knowledge Community for Student leadership Programs (NASPA), the American College Personnel Association Commission on Student Involvement (ACPA), the Association of Leadership Educators (ALE), the International Leadership Association, (ILA), and the National Clearinghouse for Leadership Programs (NCLP). Criteria for selection were based upon institutional characteristics such as institutional size, Carnegie classification, institutional control, geographic region, and population served (e.g., Historically Black Colleges and Universities, Hispanic Serving Institutions, women's institutions). Additionally, criteria also reflected the degree to which leadership education was institutionalized to ensure the final sample represented a range of institutions from those with comprehensive leadership programs to those without a formalized program. Criteria also accounted for the varying

degrees with which institutions were familiar and used the SCM as a theoretical basis for leadership development activities.

A total of 104 institutions enrolled in the MSL with 103 of them completing the survey. Of these, 101 institutions from 31 states and Washington, DC, were considered part of the national sample. Two institutions were excluded for being located in Canada and Mexico. Participation in the MSL grew considerably since it was first administered in 2006 when the national sample consisted of only 52 institutions.

The second phase of the sampling strategy involved selecting students to be surveyed at the participating institutions (Dugan & Komives, 2009). Enrollment count determined the number of students sampled at each institution. An institution with a total undergraduate enrollment of 4,000 students or less administered the survey to all its undergraduate students. An institution with enrollment exceeding 4,000 students administered the survey to a simple random sample of students. Students were oversampled by 70% in order to achieve a minimum of 30% response rate, a standard expected of Web-based questionnaire studies (Crawford, Couper, & Lamias, 2001). Through this multi-level process of purposive sampling, variation across institutional types was maximized so that findings would be more widely generalizable (Dugan, 2008a; Dugan & Komives, 2009, 2010; Dugan et al., 2008).

The final sample was comprised of 96,257 college undergraduate students. It was constructed from a total of 337,482 students from 101 institutions who were invited to complete the MSL-SS (Dugan & Komives, 2009). Of these, 115,632 returned the questionnaire, yielding a 34% response rate. The sample was reduced by the removal of cases with missing responses; specifically, respondents with less than 90% completed

responses on the study's core SRLS-R3 scale, were excluded from the sample (n = 18,940). Removal was done by using a dummy coded variable added to the dataset post-hoc by MSL principal investigators, indicating whether a respondent completed at least 90% of the 71 SRLS-R3 items (0 = Did Not Complete 90% of SRLS-R3, 1 = Completed at least 90% of SRLS-R3). Such removal was consistent with previous studies that analyzed MSL data (Dugan, 2006a, 2006b; Dugan & Komives, 2007, 2010; Haber & Komives, 2009) as it had been shown "to improve quality and reliability of [the] data" (Dugan & Komives, 2010, p. 530).

Current study sample. Respondents within the sample were sorted into four subgroups based on students' political involvement. Political involvement was defined in this study as participation in co-curricular, campus-based student organizations that were political or advocacy in nature. It was operationalized by Item 16 on the MSL-SS that asked students, "Which of the following kinds of student groups have you been involved with during college? Check all the categories that apply." Respondents selected all items that applied from a list of 23 types of student organizations (see Table 3.1). Descriptive examples of organizations displayed in Table 3.1 were provided on the MSL-SS to respondents. Respondents were able to select between zero and 23 types of organizations. Respondents indicated their involvement at the time they responded to the questionnaire. Thus, the involvement types from which students could choose were defined on the MSL-SS and not manipulated for this study.

The types of campus-based student organizations in which respondents indicated involvement determined in which one of the four subgroups they were placed. There were no overlaps among the subgroups. If students indicated they were involved in at

least one political or advocacy organization and no other organizations, then they were assigned to the "political" subgroup. If students indicated they were involved in at least one student organization type other than a political or advocacy organization, they were assigned to the "non-political" subgroup. If students indicated they were involved in both types of organizations, i.e., at least one political or advocacy organization and at least one non-political or non-advocacy organization, they were assigned to the "both political/non-political" subgroup. Students who did not indicate involvement in any student organization types were assigned to the "non-involved" group. The non-involved students were sorted into that subgroup based on a response of "no" to all 23 organization types listed on the MSL-SS. There was no "other" option listed on the MSL-SS for student organizations not listed. Operationalizing political involvement utilizing these four student subgroups for the current study was based on the literature of college student involvement, civic engagement, and political engagement (see Chapter Two for a review of such literature).

Students who did not respond to all 23 organization types listed on the MSL-SS (i.e., left at least one response blank) were treated as missing (n = 435). Because a blank or nonresponse did not necessarily indicate "no involvement," the case was treated as missing and excluded from the sample and subsequent subgroups. Therefore, the final sample utilized in this study consisted of 96,257 students.

To accommodate the analytic techniques used in this study, responses to each organizational type were dummy coded (0 = not involved, 1 = involved) and then transformed into four dummy variables representing each subgroup. Each respondent was assigned one subgroup variable. Three of these dummy coded variables were utilized in

the hierarchical multiple regression analyses with the dummy representing the non-involved subgroup serving as the referent group. For the other statistical tests conducted to explore potential differences among the four subgroups, the dummy coded variables were converted into a single, categorical independent variable with four categories representing the subgroups (1 = political subgroup, 2 = non-political subgroup, 3 = both political/non-political subgroup, 4 = non-involved subgroup). Details on these statistical tests are discussed later in the chapter.

The subgroups were comprised of the following number of respondents out of the sample of 96,257 students (see Table 3.2): 370 students (0.4%) who were involved only in political organizations; 67,241 students (69.9%) involved only in non-political organizations; 15,808 students (16.4%) involved in both political and non-political organizations; and 12,838 students (13.3%) who were not involved in any organizations.

Conceptual and Theoretical Frameworks

The present study was guided by conceptual and theoretical frameworks used in higher education research. The study's conceptual framework was adapted from A. W. Astin's (1991) inputs-environments-outcomes (I-E-O) college impact model. The theoretical framework utilized in the study was the SCM (HERI, 1996), operationalized by the SRLS-R3. In the following section, detailed explanation of both frameworks is presented.

Inputs-Environments-Outcomes College Impact Model

The I-E-O college impact model (A. W. Astin, 1991) was adapted as the current study's conceptual framework. This framework aided in the examination of the relationship between the environments (independent variables) and the leadership

outcomes (dependent variables), by controlling for multiple inputs (control variables). Inputs refer to student background characteristics prior to entering college. These measures can be fixed (e.g., demographic or academic background characteristics) or variable that change over time (e.g., attitudes or values). Inputs can also be participation in specific experiences before college or pretests for outcome measures. Environments relate to students' involvement and experiences during college, including various educational programs, policies, faculty, peers, and other factors in the collegiate environment. A. W. Astin (1991) described the environment as "encompass[ing] everything that happens to a student during the course of an educational program that might conceivably influence the outcomes under consideration" (p. 81). Outcomes represent the changes or development in students after exposure to the college environment, often serving as dependent variables in college impact studies (1991).

A. W. Astin's (1991) I-E-O model is best used as a conceptual framework in social science, nonexperimental studies due to the nonrandom assignment of people (inputs) to programs (environments) (A. W. Astin, 1991, 1993; Pascarella & Terenzini, 2005). As displayed in Figure 3.1, the I-E-O conceptual framework implies a linear relationship among the inputs, environments, and outcomes measures. As A. W. Astin (1993) explained, "change or growth in the student during college is determined by comparing outcome characteristics with input characteristics" (p. 7). However, research has shown that on a practical (i.e., non-theoretical) level, this relationship is dynamic and not always linear (Pascarella & Terenzini, 2005). A. W. Astin and Sax (1998) noted that the I-E-O model is widely used in educational research because it controls for input or background characteristics of students. Students may have different characteristics before

participating in educational programs, thus the outcomes may not reveal the impact of program participation, but rather may simply represent differences in characteristics of the students. Considering this issue, the I-E-O model controls for input differences, resulting in a more accurate estimate of how environment variables influence student outcomes, compared to if controls were not utilized (A. W. Astin, 1991).

In addition to longitudinal impact studies, the I-E-O model is often used in educational studies with pre/post designs in which inputs and outcomes are measured at different points in time so that potential environmental influences on student development could be assessed. Statistical analyses such as blocked stepwise regression or hierarchical multiple regression are common methods for applying the I-E-O model. Further, social scientists, particularly in higher education, often use the model because it controls for input and college environment (independent) variable effects in order to determine if outcomes measures add anything to the prediction of the outcome (dependent) variable.

In the present study, A. W. Astin's (1991) I-E-O model was adapted as its conceptual framework for examining students' political involvement as one aspect of the college environment and students' capacities for socially responsible leadership as the outcome. By employing such a framework, data for this study were collected in a cross-sectional manner, gathered at a single point in time, including pre and posttest leadership measures and precollege variables (inputs) that were used retrospectively to ask students to self-report at the time of the MSL rather than at a point in time prior to college. Hence, a then/post research design was employed in this study, which varied from the pre/post

longitudinal design traditionally utilized in studies that apply A. W. Astin's (1991) I-E-O model.

Research literature (Dugan & Komives, 2010; Rohs, 2002; Rohs & Langone, 1997; Rosch & Schwartz, 2009) has shown that then/post research designs can be more effective for measuring leadership development as an educational outcome than conventional pre/post designs, yielding a less conservative and more accurate means of measuring leadership outcomes. With pre/post designs, participants are asked to respond twice to each item on a self-report measure at two different points in time. The first time participants would be asked to report their behavior/understanding before participating in the leadership program (pre). The second time participants would be asked to report their behavior/understanding after the leadership program took place (post). The difference between the pre and post self-report ratings is referred to as a response shift (Rohs, 2002; Rohs & Langone, 2007). In a widely cited study, Rohs and Langone (2007) argued that pre/post research designs are "unable to accurately gauge the impacts of leadership programs" (p. 152) because a response-shift bias arises in these types of studies. Such a bias has been shown to influence the level and accuracy of reported outcome measures of leadership (Rohs, 2002; Rohs & Langone, 1997).

In any study designed to assess change with pre/post measures, the inherent assumption is a common metric at each point in time (Cronbach and Furby as cited in Rohs & Langone, 2007). Particularly with self-reported, introspective measures, it is assumed that one's standard for measuring the dimension of interest will be the same at the time of the pre and posttests. If the standard of measurement were to change, posttest scores would reflect this shift along with the actual level of change in the dimension of

interest. Consequently, comparisons of pretest with posttest ratings "would be confounded by this distortion of the internalized scale," (Rohs & Langone, 2007, p. 151), thus creating a "response shift" bias in measurement.

Leadership studies are particularly vulnerable to this response-shift bias. Since most leadership development programs seek to increase students' understanding and appreciation about leadership concepts and skills, it can be reasonably expected that students' standards of measurement or level of understanding of leadership will change when they self-report development as a result of participating in leadership programs. However, this is problematic when pretest measures of leadership development are assessed before participation in the leadership program because they tend to be inflated, affecting differences between pre/posttest scores. In some instances, no significant differences between can be found at all (Pohls as cited in Rohs & Langone, 2007). For example, a leadership workshop participant may feel at the time of the pretest that his/her skills as a leader are "average." Yet, after participating in the workshop, the student realizes that his/her skills are really below average at the time of the pretest given new understanding acquired at the workshop. Consequently, the pre/posttest might not reflect positive change for this student and that the leadership workshop was of no benefit, all because the student had different understandings about leadership (i.e., the dimensions being measured) at the different times of assessment. Rosch and Schwartz (2009) also documented this measurement problem, describing response-shift bias as a "horizon effect" (p. 181), suggesting students' self-reported responses on a pretest may become less valid as perceptions of their learning change throughout the duration of a leadership

development program. As a result, posttest results might indicate that no change occurred for participants when development actually occurred.

Empirical evidence supports these assertions made in the literature (Rohs, 2002; Rohs & Langone, 2007; Rosch & Schwartz, 2009). In the Rohs and Langone (2007) study, two student groups participated in the same leadership development program and were given the same assessment instrument. One group was given the instrument on a pre/post basis; the other group given it on a then/post basis. The same assessment instrument was administered also to a group of nonparticipants whose scores were used as a control in the study. "Very different levels of impact" (Rohs & Langone, 2007, p. 156) of the leadership program were observed between the groups, suggesting a response-shift bias may have been evident. While the control group (nonparticipants) pre/post scores did not show change, significant differences ($p < .05$) in mean scores of change were observed between the two participant groups, suggesting that the leadership program did influence students' leadership skills. Comparing the pretest scores for the two groups indicated that the pre/post participant group rated themselves higher than the then/post group. Rohs and Langone (2007) argued that the lower "then" scores by the then/post group was due to "an increase in the participants' understanding of the phenomenon under consideration or an increased appreciation of their initial level of functioning on that dimension" (p. 156). By answering the same assessment item twice during the same time, participants were evaluating themselves with the same standard of measurement or level of understanding on both the posttest measures (i.e., how they felt now) and how they felt before the program (then). Thus, their "then" pretest measure was

a more accurate assessment of their skill level than the participants who were assessed using a pre/post design.

Due to response-shift bias and how it is a "source of contamination of self-report measures that results in inaccurate pretest ratings" (Pohls as cited in Rohs & Langone, 2007), a then/post research design is more appropriate for studies attempting to measure leadership development. With such a design, participants would be asked to respond twice to each item on a self-report measure. The first asks participants to report their behavior/understanding after the leadership program (post). The second asks participants to report their behavior before the program (then). By measuring development at a single point in time after a leadership program occurred with ratings made in close proximity, it is more likely that they would be made from the same perspective, thus reducing the effects of response-shift bias (Rohs, 2002; Rohs & Langone, 1997; Rosch & Schwartz, 2009). For these reasons, it is appropriate that the MSL from which this study obtained its data was designed as then/post by gathering data in a cross-sectional manner and utilizing a retrospective quasi-pretest.

Another aspect of this study that varies from A. W. Astin's (1991) traditional I-E-O framework is the nature of the Socially Responsible Leadership scale quasi-pretest (pre-SRLS) used to assess students' precollege measures of the social change values. In an I-E-O design, a true pretest would ask the same questions at two points in time. Due to space limitations on the MSL-SS (Haber, 2006), the pre-SRLS consisted of one item per SCM measure instead of six to 11 items per SCM measure as were used on the SRLS-R3 posttest. Each single-item pretest reflected the item with the highest corresponding factor loading on each outcome measure (Dugan & Komives, 2010; Komives et al., 2009).

Despite this limitation, the pre-SRLS maintained adequate internal reliability (Cronbach alpha = .73), thus helping to control for students' input (entering) characteristics when assessing the leadership outcomes.

Applying the I-E-O conceptual framework to the current study, inputs were covariates or control variables in the study; environments were independent variables; outcomes were dependent variables. Input measures included students' demographic characteristics such as gender, racial/ethnic background, and class standing. Additionally, other input measures were students' precollege experiences including precollege involvement in clubs and service, precollege positional leadership, and precollege leadership training as well as the Socially Responsible Leadership scale quasi-pretest (pre-SRLS). Environment measures were students' current collegiate experiences, including collegiate student organization involvement, collegiate positional leadership, and collegiate leadership training. Outcome measures were students' scores on the SRLS-R3. Figure 3.2 displays these variables and how they fit into the study's I-E-O conceptual framework. Description and justification for utilization of these measures are detailed later in the chapter.

Social Change Model of Leadership

The SCM (HERI, 1996) served as the theoretical framework for the MSL and the present study. It was operationalized by the SRLS-R3, which was the core of the MSL-SS, consisting of measures designed to examine the eight competencies associated with the SCM: consciousness of self, congruence, commitment, collaboration, common purpose, controversy with civility, citizenship, and change. Each competency was measured by a subscale of six to 11 Likert-scaled items. There were 71 items in total.

Before the current iteration of the SRLS-R3 was implemented (Dugan & Komives, 2009), the scale underwent numerous revisions. It was developed initially by Tyree (1998) as part of a dissertation study to operationalize the values within the SCM (HERI, 1996). Using scale development theory, Tyree created 291 items that could measure students' self-perceptions of each of the eight SCM constructs, thereby creating eight subscales. Tyree (1998) conducted three pilots to reduce the number of items and test internal reliability of the eight subscales. The SRLS was reduced to 202 items at the second phase and by the third phase, it consisted of 103 items. Reliability was measured by a Cronbach alpha of .87 for each of the first two pilot tests, increasing to .91 during the third and final test. Internal reliability levels for the subscales ranged from .69 to .92 (see Table 3.3).

Although used in empirical studies on student' leadership development (Dugan, 2006a, 2006b), Tyree's (1998) SRLS was considered too lengthy, evidenced in low response rates, respondent fatigue, and incomplete data (Appel-Silbaugh, 2005). Appel-Silbaugh (2005) reduced the scale from 103 items to 83 items, renaming the instrument SRLS – Revised (SRLS-R). Reliability for half of the eight subscales increased slightly with the revisions, while reliability for the other half decreased slightly. Overall, internal reliability improved, and Cronbach alpha levels remained strong (see Table 3.3).

In an attempt to simplify further the scale and improve completion time and response rates, Dugan (2006c) reduced it to 68-items. His revised scale became known as SRLS – Revised Version 2 (SRLS-R2) (2006c). The SRLS-R2 was used in the first MSL administration in 2006. While shorter, the SRLS-R2 was equally reliable as prior versions (see Table 3.3). Internal reliability as measured by Cronbach alpha have been obtained

consistently in subsequent research that utilized the SRLS-R2 (Bonnet, 2008; Dugan, 2008a; Dugan & Komives, 2007, 2010; Gehrke, 2008; Haber, 2006; Rosch, 2007; Shalka, 2008; Slife, 2007; Smist, 2006; Wilson, 2009).

By 2009, when the second MSL-SS was administered, the SRLS had undergone further revisions. It was this most recent version, the SRLS-R3 (Dugan & Komives, 2009), that was used in the present study. The subscales remained the same except for the citizenship subscale, which was expanded to include additional items; hence, the total number items grew to 71. In June 2008, pilot testing was conducted on the new subscales. Subscale internal reliability on citizenship substantially increased from .77 for the 2006 MSL sample to .91 for all of the 2009 samples. Internal reliability levels for the other subscales remained consistent with previous SRLS versions and did not deviate by more than .08. Table 3.3 displays the Cronbach alpha internal reliability levels for the 2006 and 2009 samples. Alpha estimates also were computed for the total sample of student respondents in this study and by each of the four subgroups in which they were sorted (see Table 3.4). Scales are typically considered adequately cohesive if the resulting coefficients are at least .70 (Kinnear & Gray, 2008; Pallant, 2007). Alpha levels remained strong, ranging from .96 to .97 for the whole SRLS-R3 scale, .73 to .92 for the subscales, and .72 to .75 for the pre-SRLS, suggesting adequate internal reliability was maintained in this study.

Measures and Variables

A key issue in designing research is selecting the variables that best measure the inputs, environments, and outcomes (A. W. Astin, 1991). While many of the measures captured on the MSL-SS are important within the context of student leadership

development research, careful selection was done so that only the most relevant variables in relation to the literature (as reviewed in Chapter Two) were examined in this study. For example, leadership development was assessed using variables based on theoretically-derived measures. Another example, being involved in student organizations, participating in leadership training and educational programs, and holding formal leadership positions consistently emerge in the literature as experiences contributing to students' leadership development (Haber & Komives, 2009). Since this study attempts to understand students' leadership development based on involvement type (i.e., subgroup membership), these variables were included in the analyses to investigate whether they continued to contribute to student leadership development for politically involved students.

Following is a detailed discussion of the input, environment, and outcome measures utilized as this study's control, independent, and dependent variables, respectively. Table 3.5 presents these measures and variables with item descriptions and response options that were used on the MSL-SS.

Input Measures

Input measures were respondents' demographic characteristics including gender, racial/ethnic background, and class standing. Other input measures were respondents' precollege experiences including precollege involvement in clubs and service, precollege positional leadership, and precollege leadership training as well as the Socially Responsible Leadership scale quasi-pretest (pre-SRLS). These seven measures were utilized as the study's covariate or control variables.

Covariate variables are used often in research with pre/post and then/post designs because entering characteristics could potentially influence the effects of independent variables on the dependent variables (Pallant, 2007). In fact, research (A. W. Astin, 1977, 1991; 1993; Pascarella & Terenzini, 2005) has shown that student outcomes can be affected by input characteristics. Since many input characteristics are also related to environmental variables, the effects on outcomes may potentially reflect more of the effects of the inputs rather than solely the effects of environment. Thus, how outcomes are affected by the environment could be biased unless input characteristics are controlled for (A. W. Astin, 1991). In this study, to account for the potential influence of students' demographic backgrounds and precollege experiences, these variables were controlled. Justification for controlling them comes from the literature that highlights the influence of identity in co-curricular involvement today (Balón, 2005; Harper & Quaye. 2007; Rhoads, 1997; Sutton & Terrell, 2007). Research suggests gender differences in leadership style (Boatwright & Egidio, 2003; Eagly et al., 2003; Romano, 1996) and a disparity in leadership participation across gender and racial/ethnic background (Arminio et al., 2000; Kezar & Moriarty, 2000). Class standing was chosen as a control variable due to the varied amount of time students have to gain experiences that may contribute to their leadership outcome scores (Haber, 2006).

Demographic characteristics. Characteristics related to students' demographic backgrounds were utilized as covariate variables in this study: gender, racial/ethnic background, and class standing.

Gender. The gender variable was assessed by Item 30a on the MSL-SS that asked students, "What is your gender"? Students were able to select one response option from

Female, Male, and Transgender. This variable was coded as a dichotomous, nominal, categorical variable (1 = Female, 0 = Male). Respondents who indicated Transgender were excluded from the analysis since there were too few ($n < 1\%$) to use as a distinct gender category.

Racial/ethnic background. The racial/ethnic background variable was assessed by Item 33 on the MSL-SS that asked students, "Please indicate your broad racial group membership." Students were able to select all response options that applied from a list of eight racial/ethnic group memberships: White/Caucasian, Middle Eastern, African American/Black, American Indian/Alaska Native, Asian American/Asian, Latino/Hispanic, Multiracial, and race/ethnicity not included above. Responses in the dataset were coded by MSL PIs so that each respondent fell into only one category and respondents that were multiracial, but did not select that group were forced into the category. This created eight distinct categories of racial/ethnic background. After the dataset was received for use in this study, they were collapsed into six categories: African American/Black, Asian American/Asian, Latino/Hispanic, White/Caucasian, Multiracial, and Other/Not Reported. The small proportion ($n < 1\%$) of Middle Eastern respondents was included in the White/Caucasian category, which conformed to the U.S. Department of Education (2011) current definitions of racial/ethnic background. Additionally, the small proportion ($n < 1\%$) of American Indian/Native Alaskan respondents was included in the Other/Not Reported category. The proportion was too low to use as a distinct racial/ethnic group category.

Class standing. The class standing variable was assessed by Item 3 on the MSL-SS that asked students, "What is your current class level"? Students were able to select

one response option from Freshman/First Year, Sophomore, Junior, Senior (4th year and beyond), Graduate Student, and Unclassified. The class standing variable was recoded as a nominal, categorical variable (1 = Freshman/First Year, 2 = Sophomore, 3 = Junior, 4 = Senior). However, it was treated in the statistical analyses as an interval, continuous variable since it had ordered categories spaced at equal intervals. No respondents indicated Graduate Student, which was expected since the MSL sampled only undergraduate students. Data for Unclassified responses ($n < 1\%$) were treated as missing.

Precollege experiences. In addition to demographic characteristics, three variables representing student respondents' precollege experiences were used as covariates in this study. The precollege experiences tested were precollege involvement in clubs and service, precollege positional leadership, and precollege leadership training.

Precollege involvement in clubs and service. The precollege involvement in clubs and service variable was assessed by Items 9 and 10 on the MSL-SS that asked students, "Looking back to when you were in high school, how often did you engage in the following activities"? Activities included participating in student council or student government, performing community service, participating in community organizations, and working with others for change to address societal problems (e.g., rally, protest, community organizing). Respondents rated frequency on a 4-point Likert scale from 1 (*never*) to 4 (*very often*). An omnibus variable was computed for the mean scores of the four activities. Higher scores indicated more frequent involvement in clubs and service before college.

Precollege positional leadership. The precollege positional leadership variable was assessed by Items 9 and 10 on the MSL-SS that asked students, "Looking back to when you were in high school, how often did you engage in the following activities"? Activities included holding leadership positions in student clubs, groups, or sports as well as taking leadership positions in community organizations. Respondents rated frequency on a 4-point Likert scale from 1 (*never*) to 4 (*very often*). An omnibus variable was computed for the mean scores of the four activities. Higher scores indicated more frequent participation in leadership positions before college.

Precollege leadership training. The precollege leadership training variable was assessed by Item 10 on the MSL-SS that asked students, "Looking back to before you started college, how often did you engage in the following activities"? Activities included participating in training or education that developed one's leadership skills. Respondents rated frequency on a single 4-point Likert scale item from 1 (*never*) to 4 (*very often*). Higher scores indicated more frequent participation in leadership training or education programs before college.

Socially Responsible Leadership scale Quasi-Pretest. In addition to students' demographic characteristics and precollege experiences, students' scores on the Socially Responsible Leadership scale quasi-pretest (pre-SRLS) were utilized as covariates in this study. The pre-SRLS was an 8-item scale that assessed students' precollege measures of the social change values. Each item on the scale measured a different value of the SCM: consciousness of self, congruence, commitment, collaboration, common purpose, controversy with civility, citizenship, and change. The pre-SRLS was assessed by Item 11 on the MSL-SS that asked students, "Looking back to before you started college,

please indicate your level of agreement with the following items"? Respondents rated their level of agreement with each item on a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). An omnibus variable was computed for the mean scores of the eight items. Higher scores indicated respondents' perceptions of greater capacity for socially responsible leadership before college. Together with the SRLS-R3, the pre-SRLS measured students' perceptions of change or leadership development.

Adequate internal reliability of the pre-SRLS was verified. Cronbach alpha values were ≥ .70 (Kinnear & Gray, 2008; Pallant, 2007), as reported earlier in the chapter: .73 for the overall sample and ranged from .72 to .75 for each student subgroup.

Environment Measures

Environment measures were students' collegiate experiences, including student organization involvement, positional leadership, and leadership training. These measures were utilized as the study's independent variables. Justification for these variables coincides with the research on student organization involvement (A. W. Astin, 1993; Dugan, 2006b; Gerhardt, 2008; Kezar & Moriarty, 2000; Rosch, 2007), holding a positional leadership role in student organizations (A. W. Astin, 1993; Dugan, 2006b; Haber, 2006; Kezar & Moriarty, 2000), and participation in leadership programs and courses (Cress et al., 2001; Dugan, 2006b; Kezar & Moriarty, 2000).

Collegiate student organization involvement type. This variable measured the type of student organizations that students reported they were involved in during college. It was assessed by Item 16 on the MSL-SS that asked students, ""Which of the following kinds of student groups have you been involved with during college? Check all the categories that apply." Respondents were able to select between zero and 23 types of

organizations that applied from a list of 23 types of student organizations. The types of campus-based student organizations in which respondents indicated involvement determined in which one of the four subgroups they were placed: political, non-political, both political/non-political, or non-involved.

Collegiate student organization involvement frequency. This variable measured the frequency that students reported they were active members of student organizations during college. It was assessed by Item 15 on the MSL-SS that asked students, "Since starting college, how often have you been an involved member in college organizations"? Respondents rated frequency on a 5-point Likert scale from 1 *(never)* to 5 *(much of the time)*. Higher scores indicated more frequent involvement in campus-based student organizations during college.

Collegiate positional leadership. This variable measured the respondents' reported frequency with which they held a leadership position in a campus-based student organization during college. It was assessed by Item 15 on the MSL-SS that asked students, "Since starting college, how often have you held a leadership position in a college organization(s) (ex. officer in a club or organization, captain of athletic team, first chair in musical group, section editor of newspaper, chairperson of committee)"? Respondents rated frequency on a 5-point Likert scale from 1 *(never)* to 5 *(much of the time)*. Higher scores indicated more frequent participation in a leadership position in campus-based student organizations during college.

Collegiate leadership training. This variable measured the frequency respondents reported for participation in leadership training programs or educational experiences during college. It was assessed by Item 19a on the MSL-SS that asked

students, "Since starting college, to what degree have you been involved in the following types of leadership training or education"? Twelve types of leadership training or education programs were listed. Students rated frequency of each type on a scale from 1 (*never*) to 4 (*often*). An omnibus variable was computed for the mean scores of the twelve leadership training or education programs. Higher scores indicated more frequent participation in campus-based leadership training or education programs during college.

Outcome Measures

Outcome measures were students' scores on the SRLS-R3. These measures were utilized as the study's dependent variable.

Socially Responsible Leadership scale. The core of the MSL-SS consisted of the SRLS-R3, a set of measures designed to examine the eight values associated with the SCM: consciousness of self, congruence, commitment, collaboration, common purpose, controversy with civility, citizenship, and change. The SRLS-R3 was a 71-item scale assessed by Item 20 on the MSL-SS that asked students, "Please indicate your level of agreement with the following items. For the statements that refer to a group, think of the most effective, functional group of which you have been a part. This might be a formal organization or an informal study group. For consistency, use the same group in all your responses." Each of the eight values was measured by a subscale consisting of six to eleven Likert-scaled items. Respondents rated their level of agreement with each item on a 5-point Likert scale from 1 *(strongly disagree)* to 5 *(strongly agree)*. Mean scores were computed for each of the eight subscales. Additionally, an omnibus variable was computed for the mean scores of all 71 items. Higher scores indicated respondents' greater capacity for socially responsible leadership during college.

Adequate internal reliability of the SRLS-R3 was verified. Cronbach alpha values were ≥ .70 (Kinnear & Gray, 2008; Pallant, 2007), as reported earlier in the chapter: .96 for the whole sample omnibus scores and from .96 to .97 for omnibus scores of each student subgroup.

Data Analysis

Data analysis for the current study was conducted to examine the relationship between students' political involvement and their capacities for socially responsible leadership. Following are the procedures undergone to prepare the data for analysis and the statistical tests employed to answer the study's three research questions. Such procedures were informed by the methodological literature (Kinnear & Gray, 2008; Krathwohl, 2004; Leech, Barrett, & Morgan, 2005; Pallant, 2007; Tabachnick & Fidell, 2007) as well as the leadership literature, including past studies that utilized MSL datasets (Chowdhry, 2010; Dugan, 2008a; Dugan & Komives, 2010; Fincher, 2008; Haber, 2006; Rosch, 2007; Shalka, 2008; Slife, 2007; Smist, 2006; Wilson, 2009).

Data Preparation

Several analytical procedures were conducted to prepare the data for analysis. First, data were checked to ensure only undergraduate students were included in the sample. Second, respondents with less than 90% completed responses on the study's core SRLS-R3 scale and respondents who did not respond to all organization types listed on the MSL-SS were excluded from the sample. Data quality and reliability are based in part on the inclusion or exclusion of cases with missing responses (Pallant, 2007). Therefore, internal reliability of the SRLS-R3 was retested after the exclusion of incomplete

responses. Cronbach alpha estimates confirmed it maintained adequate internal reliability (see Table 3.4).

Third, data were screened for errors. Using descriptive statistics, variables were reviewed to ensure that the data fell within the acceptable range for each variable; no errors were observed. Fourth, variables were examined to determine if any recoding needed to be done. Recoding was done on all of the demographic variables so that all responses of "Don't know" were recoded as blank or empty cells. Cases for which no responses were given also were treated as missing. This way, analyses such as regressions and correlations could be conducted for the study. After the variables were recoded, frequencies for the recoded variables were verified that they maintained the same counts as the ones of the corresponding original variables.

After the data were prepared, the analytic procedures described in the next section were conducted to address the study's research questions.

Analytic Procedures

First, descriptive analyses of the data were conducted to elucidate the nature of the sample. Then, key descriptive statistics were reported for the respondents as a whole and by subgroup as they related to the variables examined in this study. Following, more complex analytical procedures explained in the next section were conducted in order to address the three research questions.

Research question #1. The first research question aimed to examine whether there were subgroup differences in students' demographic characteristics, precollege experiences, capacities for socially responsible leadership prior to entering college, and collegiate experiences. For the demographic characteristics (gender, racial/ethnic

background, and class standing), in all cases, expected frequencies were ≥ 5 in at least 80% of the cells. Differences were tested using the chi-square test for independence at a significance level of alpha = .001. Following the chi-square tests for independence, effect sizes using the Cramer's V test statistic were computed and utilized in the interpretation of results (details on effect sizes are explained later in the chapter). To test differences on the precollege variables measuring precollege experiences, capacities for socially responsible leadership prior to entering college, and collegiate experiences, one-way between-groups analysis of variance (ANOVA) was conducted at an alpha level = .001.

Effect sizes using the eta squared (η^2) statistic were computed and utilized in the interpretation of results. If results showed a significant difference somewhere among the mean scores for the four subgroups (based on the overall *F* ratio), post-hoc tests were conducted using the Tukey Honestly Significant Difference (HSD) Test for Multiple Comparisons to determine between which subgroups these differences occurred, if any, at the $p < .001$ level. Effect size tests using Cohen's *d* were conducted to measure the magnitude of any statistically significant difference between subgroups.

Statistical tests of significance, such as chi-square tests for independence and ANOVA, are subject to error (Kinnear & Gray, 2008). The likelihood of wrongly identifying or failing to identify differences between groups is commonly known as Type I and Type II error. Type I error involves wrongly rejecting the null hypothesis when actually there is no difference in the population. To reduce the probability of committing Type I error, a more stringent statistical level of significance can be utilized. In studies in the educational field, commonly the statistical level of significance used is alpha = .05 (Pallant, 2007). Alpha (α) is the probability of committing Type I error. If a higher (i.e.,

less stringent) alpha was used, the risk increases of falsely rejecting the null hypothesis, casting doubts on the validity of the results. However, if the alpha is too conservative, one will more frequently wrongly accept the null hypothesis (i.e., there is no difference between groups) when it actually is false (i.e., there is a difference), thereby committing Type II error.

Defined as the probability of correctly rejecting the null hypothesis given the alternative hypothesis is true, the power of a statistical significance test addresses issues of Type II error. Statistically, power is expressed as 1-β, where β is the probability of committing Type II error. When a statistical test has low power, the risk increases for committing Type II error, i.e., there is little chance of detecting a significant difference even though there is one. However, if the power is very high, a small population difference is detectable, leading to the conclusion that results are significant even though they could have little to no practical value. Power is dependent on sample size (Pallant, 2007). When the sample size is large (i.e., greater than 100 cases), power is high. Since the sample size was large in this study (n = 96,257), the statistical tests utilized in this study had a great deal of power. However, the small size of the political subgroup (n = 370) relative to the other subgroups could be an issue of lower power and potentially lead to a higher chance of finding non-significant differences. Overall, Type II errors were of little concern in this study. To address the probability of Type I error, a more stringent level of significance was used in this study (alpha = .001) and effect sizes were reported. Caution was made in interpreting the results.

Reporting effect sizes is important with statistical significance tests, such as chi-square test for independence or ANOVA, because effect sizes go beyond statistical

significance by indicating more of the "practical significance or importance" of the relationship (Leech et al., 2005, p. 54). Effect size is defined as "the strength of the relationship between the independent variable and the dependent variable, and/or the magnitude of the difference between levels of the independent variable with respect to the dependent variable" (Leech et al., 2005, p. 55). Because effect size is relatively independent of sample size (Levine & Hullett, 2002), reporting effect sizes is particularly important in studies with large samples, when small differences between groups can be statistically significant (Pallant, 2007).

Different effect size measures are used for different statistical tests. For chi-square tests for independence, the Cramer's V statistic is used to measure effect size (for crosstabulation tables larger than 2 by 2). Values vary from 0 (reflecting complete independence) to 1.0 (reflecting complete dependence or association). Eta squared (η^2) and Cohen's *d* are other effect size measures commonly used for statistical tests of differences such as ANOVA and MANOVA. Eta squared expresses the strength of association as the proportion of variance in the dependent variable explained by the group (categorical) variable. Values vary between 0 to 1.0 with 0 representing no effect and +1 the maximum effect. Cohen's *d* expresses the magnitude of difference between means (effect size) in standard deviation units. Values typically vary from 0 to + or - 1, but it can be greater than 1.

The values of the Cramer's V statistic reported in the present study were provided by the statistical software used for all the study's analyses, but it did not perform the computations for the eta squared and Cohen's *d* statistics. These were calculated manually using the information provided in the ANOVA tables generated by the

software. Eta squared was calculated by dividing the sum of squares between-groups by the total sum of squares. Cohen's *d* was calculated by subtracting the mean of the second group from the mean of the first group and dividing by the pooled standard deviation of both groups.

Cohen's guidelines are often used to interpret effect sizes (See Table 3.6). He classified effect sizes as small, medium, or large depending on the type of statistical analyses employed. He (1988) described a small effect as difficult to detect; a medium effect is "visible to the naked eye" (p. 26); and a large effect is "grossly perceptible" (p. 27). He noted that these guidelines were not absolute. Urging caution, he noted that the guidelines were based on effect sizes usually found in studies in the behavioral sciences, but they were not universally applicable to all subfields in the behavioral sciences. They were relative, Cohen (1988) suggested, to the typical findings specific to fields of study. Hence, Leech et al. (2005) advised that the research literature should be examined to see how effect sizes are typically interpreted in the field or on the particular topic. Further, Cohen (1988) asserted that effect size is not a direct measure of the practical significance or importance of the finding, although it is more relevant than statistical significance. What constitutes a large or important effect depends on the specific area studied, the context, and the methods used (Leech et al., 2005). Therefore, any significant findings and effect sizes in this study were interpreted with attention to the ones reported in the higher education and leadership literature.

Research question #2. The second research question aimed to examine whether there were subgroup differences in students' socially responsible leadership during college. Using a significance level $\alpha = .001$, ANOVA was conducted to test for

differences among the four student subgroups based on mean omnibus scores of students' self-reports on the SRLS-R3. Effect sizes using the eta squared (η^2) statistic were computed and utilized in the interpretation of results. If results showed a significant difference somewhere among the mean scores for the four subgroups (based on the overall *F* ratio), post-hoc tests were conducted using the Tukey HSD Test for Multiple Comparisons to determine between which subgroups these differences occurred, if any, at the $p < .001$ level. Effect size tests using Cohen's *d* were examined.

Using one-way between-groups multivariate analysis of variance (MANOVA) with a significance level $\alpha = .001$, further examination was conducted to see if there were any subgroup differences for each of the eight SRLS-R3 subscales. Pillai's trace statistic was utilized for these tests given its strength against violations of normality and homogeneity of dispersion when there are unequal N values (Pallant, 2007; Tabachnick & Fiddell, 2007).

Prior to the MANOVA, a Pearson product-moment correlation analysis was conducted to assess the strength of the relationship among the eight SRLS-R3 subscale scores (dependent variables). For understanding the magnitude of the correlations, Cohen (1988) suggested guidelines for interpreting correlation coefficients as small, medium, or large (see Table 3.6). The coefficient of determination produced by a correlation analysis is also used to examine how much variance two variables share, computed by squaring the correlation coefficient (r^2). For instance, an $r = .58$ means there is 33.76% shared variance between two variables, meaning the one variable helps to explain nearly 34% of the variance in scores on the other variable.

When using correlation coefficients to assess multicollinearity, they should not be stronger than .80 or .90, which could indicate multicollinearity (Pallant, 2007). Results (see Table 3.7) indicated that the eight subscales of the SRLS-R3 had positive correlations ranging from .48-.80 ($p < .01$), thus not exceeding the guidelines. These results suggest MANOVA to be the appropriate statistical test for this study.

Research question #3. The third research question aimed to examine the amount of variance in socially responsible leadership development explained by students' political involvement, after controlling for students' demographic characteristics, precollege experiences, and capacities for socially responsible leadership prior to entering college. It also investigated the effect of collegiate experiences on socially responsible leadership development after political involvement was taken into account. These variables were examined using hierarchical multiple regression to determine the best predictors of socially responsible leadership development.

Hierarchical multiple regression is used in research to explore the relationship between one dependent variable and a number of independent variables called predictors (Pallant, 2007). Multiple regression is used to predict scores of a scale or continuous dependent variable from a combination of several predictor variables, which can be interval, scale, and/or dichotomous. It indicates how much unique variance in the dependent variables is explained by the predictors. In hierarchical multiple regression, variables are entered in blocks in order to assess the amount of variance each block contributes to predicting the outcome variable. As blocks of variables are entered into the regression equation, each block is evaluated in terms of how much of the total variance in the dependent variable is uniquely explained over and above what is explained by

predictor variables already entered into the equation, using the R square statistic (r^2). Standardized beta (β) coefficients are also used in hierarchical multiple regression to determine how much each independent variable contributes to the equation and assess which independent variables are the best predictors of the dependent variable. Standardized beta coefficients represent the unique contribution of each variable, when the overlapping effects of all other variables are statistically removed. Additionally, the predictors are analyzed using unstandardized B coefficients, indicating for dichotomous variables how means differ on the dependent variable after the other predictors are controlled for. It indicates by how much scores in the dependent variable would change, on average, with a one-point change in the predictor variable.

In the present study, the outcome measure of omnibus SRLS-R3 scores (i.e., dependent variable) was regressed on the student subgroups (i.e., independent variables) to test for a relationship between the variables, while controlling for input and environment variables. R square statistics, beta coefficients, B coefficients, and the corresponding levels of significance were examined. Significance of individual variables within the overall model was tested at $\alpha = .001$, consistent with other analyses conducted in this study, given the study's large sample size.

Figure 3.3 displays the five blocks of variables and the order in which they were entered into the regression equation. Consistent with A. W. Astin's (1991) inputs-environments-outcomes (I-E-O) college impact model, designated input were entered first into the regression to control for demographic characteristics (gender, racial/ethnic background, and class standing). Of the six categories of racial/ethnic background, White/Caucasian was chosen as the referent group.

Other inputs were entered into the second and third block of the regression equation. The omnibus variable representing the precollege measures of the social change values (pre-SRLS) was entered into the second block. The omnibus variables representing precollege experiences, including precollege involvement in clubs and service, precollege positional leadership, and precollege leadership training were entered into the third block.

The fourth block of the equation consisted of students' political involvement as represented by the four student subgroups. Three dummy variables were entered, with the non-involved subgroup chosen as the referent group. The fifth and final block consisted of the environment variables, which were the omnibus variables representing collegiate experiences: collegiate student organization involvement, collegiate positional leadership, and collegiate leadership training. Collegiate experiences were entered last in order to determine how much variance in socially responsible leadership development was explained by them after political involvement was controlled and taken into account.

Prior to conducting the hierarchical multiple regression analysis, the level of multicollinearity among the independent (predictor) variables was examined using correlation analysis (see Table 3.8). Multicollinearity exists when there are high intercorrelations among two or more predictors in a regression ($r \geq .70$), which "can lead to misleading and/or inaccurate results" (Leech et al., 2005, p. 90). No correlations were observed greater than .67.

Because problems with multicollinearity are not always evident in a correlation matrix (Pallant, 2007), multicollinearity was assessed also by examining the variance inflation factor (VIF) for each of the independent (predictor) variables. The VIF is the

inverse of the tolerance value, which is "an indicator of how much of the variability of the specified independent [variable] is not explained by the other independent variables in the model" (Pallant, 2007, p. 156). If the VIF exceeds a value of 10, it may be an indication of multicollinearity. No variables' VIF values exceeded this standard; hence, no indications of multicollinearity were found.

Chapter Summary

This chapter detailed the methodology employed to answer its three research questions. As the purpose of the study was to investigate the relationship between college students' political involvement and their capacities for socially responsible leadership, it examined whether students' political involvement was associated with higher scores on measures of socially responsible leadership, and whether students' demographic characteristics, precollege experiences, and collegiate experiences related to their political involvement and socially responsible leadership development during college. This quantitative study used secondary data collected as part of the 2009 Multi-Institutional Study of Leadership (MSL), a national project examining influences on college student leadership development. Data were analyzed using multiple statistical techniques including descriptive statistics, analysis of variance, multivariate analysis of variance, correlation analysis, and hierarchical multiple regression. The following two chapters present results, discussion, and implications.

Tables and Figures

Table 3.1 *Typology of Student Organizations*

Type	Examples
Academic/Departmental/Professional	Pre-Law Society, an academic fraternity, Engineering Club
Advocacy*	Students Against Sweatshops, Amnesty International
Arts/Theater/Music	Theater group, Marching Band, Photography Club
Campus-Wide Programming	Program board, film series board, multicultural programming committee
Honor Societies	Omicron Delta Kappa [ODK], Mortar Board, Phi Beta Kappa
Identity-Based	Black Student Union, LGBT Allies, Korean Student Association
International Interest	German Club, Foreign Language Club
Media	Campus Radio, Student Newspaper
Military	ROTC, cadet corps
Multi-Cultural Fraternities and Sororities	National Pan-Hellenic Council NPHC groups such as Alpha Phi Alpha Fraternity Inc.,or Latino Greek Council groups such as Lambda Theta Alpha
New Student Transitions	Admissions ambassador, orientation advisor
Peer Helper	Resident assistants, peer health educators
Political*	College Democrats, College Republicans, Libertarians
Recreational	Climbing Club, Hiking Group
Religious	Fellowship of Christian Athletes, Hillel
Resident Assistants	
Service	Circle K, Habitat for Humanity
Social Fraternities or Sororities	Panhellenic or Interfraternity Council groups such as Sigma Phi Epsilon or Kappa Kappa Gamma
Social/Special Interest	Gardening Club, Sign Language Club, Chess Club
Sports-Club	Club Volleyball, Club Hockey
Sports-Intercollegiate or Varsity	NCAA Hockey, Varsity Soccer
Sports-Intramural	Intramural flag football
Student Governance	Student Government Association, Residence Hall Association, Interfraternity Council

Note. Type names and examples derived from Item 16 on 2009 MSL-SS. Used with permission of the Multi-Institutional Study of Leadership. *Denotes types of organizations considered "political" in current study.

Table 3.2 *Number of Respondents in Student Subgroups Based on Collegiate Student Organization Involvement*

Student Subgroup	*n*	%
Political[a]	370	0.4
Non-Political[b]	67,241	69.9
Both[c]	15,808	16.4
Non-Involved[d]	12,838	13.3
Total	96,257	100.0

Note. [a]Defined as involvement in only at least one political or advocacy student organization (and no other organizations). [b]Defined as involvement in at least one non-political or non-advocacy student organization. [c]Defined as involvement in at least one political or advocacy student organization and one non-political or non-advocacy student organization. [d]Defined as no involvement in any student organizations.

Table 3.3 *Internal Reliability Tests for 2006 and 2009 MSL Datasets (Cronbach Alpha Coefficients) – Socially Responsible Leadership Scale*

Subscale	Original SRLS[a]	SRLS-R[b]	SRLS-R2[c]	SRLS-R3[d]
Individual Values				
Consciousness of Self	.82	.78	.79	.80
Congruence	.82	.79	.80	.85
Commitment	.83	.83	.83	.84
Group Values				
Collaboration	.77	.80	.82	.83
Common Purpose	.83	.81	.82	.85
Controversy with Civility	.69	.72	.77	.75
Community Values				
Citizenship	.92	.89	.77	.91
Change	.78	.82	.81	.83
Omnibus SRLS Posttest	-	-	.96	.96
Omnibus SRLS Pretest	-	-	-	.73

Note. [a]Based on 103-item scale (Tyree, 1998). [b]Based on 83-item scale (Appel-Silbaugh, 2005). [c]Based on 68-item scale (Dugan, 2006c). [d]Based on 71-item scale (Dugan & Komives, 2009) used in this study.

Table 3.4 *Internal Reliability Tests for 2009 MSL Dataset for Total Sample and By Subgroup (Cronbach Alpha Coefficients) – Socially Responsible Leadership Scale*

Scale			Student Subgroup			
	Full Sample[a]	Reduced Sample[b]	Political[c]	Non-Political[d]	Both[e]	Non-Involved[f]
Individual Values						
Consciousness of Self	.80	.80	.79	.79	.80	.82
Congruence	.85	.85	.83	.84	.86	.87
Commitment	.84	.83	.80	.82	.85	.85
Group Values						
Collaboration	.83	.83	.80	.82	.84	.85
Common Purpose	.85	.85	.83	.84	.85	.86
Controversy with Civility	.75	.75	.73	.74	.76	.76
Community Values						
Citizenship	.91	.91	.92	.91	.92	.91
Change	.83	.83	.86	.82	.83	.84
Omnibus SRLS Posttest	.96	.96	.96	.96	.96	.97
Omnibus SRLS Pretest	.73	.73	.72	.72	.74	.75

Note. [a]Based on all respondents for the 2009 MSL (n = 115,632). [b]Based on 2009 MSL respondents who completed at least 90% of the SRLS-R3 and had no missing responses to organization involvement items (n = 96,257) except for Omnibus SRLS Pretest (n = 96,138). [c]Defined as involvement in only at least one political or advocacy student organization (and no other organizations). [d]Defined as involvement in at least one non-political or non-advocacy student organization. [e]Defined as involvement in at least one political or advocacy student organization and one non-political or non-advocacy student organization. [f]Defined as no involvement in any student organizations.

Table 3.5 *Measures and Variables Utilized in this Study*

Construct (Measure Type)	**Variable (MSL-SS Item No.)**	**MSL-SS Item**	**Response Choices**
Demographic Characteristics (Input)	Gender (30)	What is your gender?	1=Female, 0=Male
	Racial/Ethnic Background (33)	Please indicate your broad racial group membership (6 categories).	1=Yes, 0=No
	Class Standing (3)	What is your current class level?	1=Freshman, 4=Senior
Socially Responsible Leadership Before College (Covariate)	Socially Responsible Leadership Scale Quasi-Pretest (11)	Please indicate your level of agreement with the following items (8 items). Responses recoded as omnibus variable.	1=Strongly Disagree, 5=Strongly Agree
Precollege Experiences (Covariate)	Precollege Involvement in Clubs & Service (9, 10)	Looking back to when you were in high school, how often did you engage in the following activities? • student council or student government • performed community service • participated in community organizations • worked with others for change to address societal problems	1=Never, 4=Very Often
	Precollege Positional Leadership (9, 10)	Looking back to when you were in high school, how often did you engage in the following activities? • leadership positions in student clubs, groups, sports • took leadership positions in community organizations	1=Never, 4=Very Often
	Precollege Leadership Training (10)	Looking back to before you started college, how often did you engage in the following activities? • participated in training or education that developed your leadership skills	1=Never, 4=Very Often
Collegiate Experiences (Environment)	Collegiate Student Organization Involvement (15)	Since starting college, how often have you been an involved member in college organizations?	1=Never, 5=Much of the Time
	Collegiate Positional Leadership (15)	Since starting college, how often have you held a leadership position in a college organization(s) (ex. officer in a club or organization, captain of athletic team, first chair in musical group, section editor of newspaper, chairperson of committee)?	1=Never, 5=Much of the Time

Table 3.5 (*continued*)

Construct (Measure Type)	Variable (MSL-SS Item No.)	MSL-SS Item	Response Choices
Collegiate Experiences (Environment)	Collegiate Leadership Training (19)	Since starting college, to what degree have you been involved in the following types of leadership training or education?	1=Never, 4=Often
Socially Responsible Leadership During College (Outcome)	Socially Responsible Leadership Scale Posttest (20)	Please indicate your level of agreement with the following items (71 items). Responses recoded as omnibus variable and eight subscale variables (consciousness of self, congruence, commitment, collaboration, common purpose, controversy with civility, citizenship, change).	1=Strongly Disagree, 5=Strongly Agree
Political Involvement	Involvement Subgroup Membership (16)	Recoded variable based on responses to, "Which of the following kinds of student groups have you been involved with during college? (23 groups, mark all that apply)."	Political, Non-Political, Both Political/Non-Political, Non-Involved

Note. Items depicted in table and text used with permission of the Multi-Institutional Study of Leadership.

Table 3.6 *Guidelines for Interpreting Effect Sizes (Cohen, 1988)*

	Cramer's V[a]						
Effect Size Strength	*df** = 1	*df** = 2	*df** = 3	Cohen's *d*[b]	Eta Squared (η^2)[c]	*r* value[d]	r^2 value[e]
Small	.10	.07	.06	.20	.01	.10	.01
Medium	.30	.21	.17	.50	.09	.30	.09
Large	.50	.35	.29	.80	.25	.50	.25

Note. The numbers in this table should be interpreted as a range of values. For example, a *d* greater than .80 (or less than -.80) would be described as large, a *d* between .60 and .70 would be medium to large, and a *d* between .10 and .20 would be small. [a]Interpretation of effect size using the Cramer's V statistic depends on the value of the crosstabulation degrees of freedom (*df**). The value of *df** is the smaller of either (*R* – 1) or (*C* – 1), where *R* is the number of rows in the crosstabulation table and *C* is the number of columns. [b]*d* values can vary from 0.0 to greater than + or -1.0. [c]The eta squared statistic describes the percentage of the dependent variable's variance explained in the other variable. For example, a value of .01 would be described as a medium effect, meaning that one variable explained 1% of the variance in the other variable. Eta squared is comparable to r^2 when the degrees of freedom of the numerator > 1. [d]*r* values can vary from 0.0 to 1.0. [e]r^2 values can vary from 0.0 to greater than + or -1.0.

Table 3.7 *Intercorrelations Matrix for Socially Responsible Leadership Scale Posttest Subscale Scores (n = 96,257)*

	1	2	3	4	5	6	7	8
1. Consciousness of Self	.	.650**	.627**	.604**	.587**	.566**	.481**	.586**
2. Congruence		.	.730**	.648**	.670**	.528**	.567**	.494**
3. Commitment			.	.691**	.695**	.553**	.544**	.509**
4. Collaboration				.	.794**	.630**	.671**	.606**
5. Common Purpose					.	.568**	.708**	.548**
6. Civility						.	.502**	.696**
7. Citizenship							.	.488**
8. Change								.

*** p < .01 (2-tailed)*

Table 3.8 *Intercorrelations Matrix for Hierarchical Multiple Regression Predictor Variables (n = 90,365)*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Omnibus SRLS-R3	.	.07***	.05***	-.08***	.01***	.02***	-.01	.09***	.54***	.27***	.25***	.26***	.00	-.02***	.13***	.26***	.22***	.18***
2. Gender		.	.03***	-.03***	.00	.00	-.01	-.00	.05***	.15***	.08***	.04***	.01	-.04***	.00	.03***	-.01***	-.02***
3. African American/Black			.	-.07***	-.05***	-.07***	-.03***	.01	.05***	.06***	.01***	.06***	-.00	-.01***	-.02***	-.03***	-.01	.06***
4. Asian American/Asian				.	-.06***	-.08***	-.04***	-.02***	-.02***	.01***	-.01	.00	-.01***	.02***	-.03***	-.01***	.01***	.03***
5. Latino/Hispanic					.	-.06***	-.03***	-.01	.02***	.01	-.01**	.01***	-.00	-.03***	-.01***	-.05***	-.02***	.02***
6. Multiracial						.	-.04***	-.01	.01***	.01***	.00	.02***	.01	-.02***	.02***	-.01***	.00	.01
7. Other/Not Reported							.	.01	.00	.02***	.00	.02***	.00	-.01***	.00	-.02***	.00	.02***
8. Class Standing								.	-.07***	-.08***	-.09***	-.06***	-.01	-.01	.05***	.10***	.25***	.13***
9. pre-SRLS									.	.33***	.33***	.31***	-.00	.03***	.04***	.15***	.08***	.07***
10. Precollege Involvement in Clubs & Service										.	.67***	.53***	-.01	-.03***	.17***	.24***	.19***	.22***
11. Precollege Positional Leadership											.	.51***	-.02***	.04***	.14***	.31***	.27***	.22***
12. Precollege Leadership Training												.	-.01	-.01	.10***	.16***	.16***	.21***
13. Political Subgroup													.	-.10***	-.03***	-.05***	-.04***	-.02***
14. Non-Political Subgroup														.	-.68***	.17***	.02***	-.06***
15. Both Political/Non-Political Subgroup															.	.24***	.23***	.21***
16. Collegiate Student Organization Involvement																.	.64***	.31***
17. Collegiate Positional Leadership																	.	.43***
18. Collegiate Leadership Training Participation																		.

**** $p < .001$ (2-tailed)*

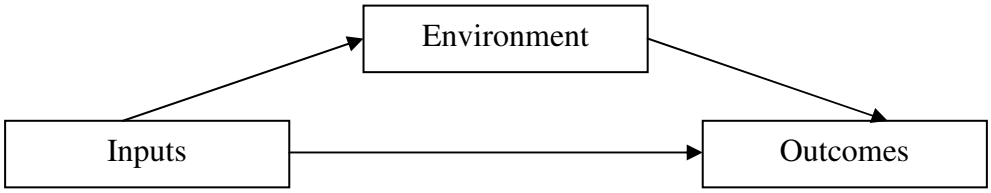

Figure 3.1 I-E-O College Impact Model.
From *"Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education,"* by A. W. Astin, 1991, New York: NY. Copyright 1991 by Author. Reprinted with permission.

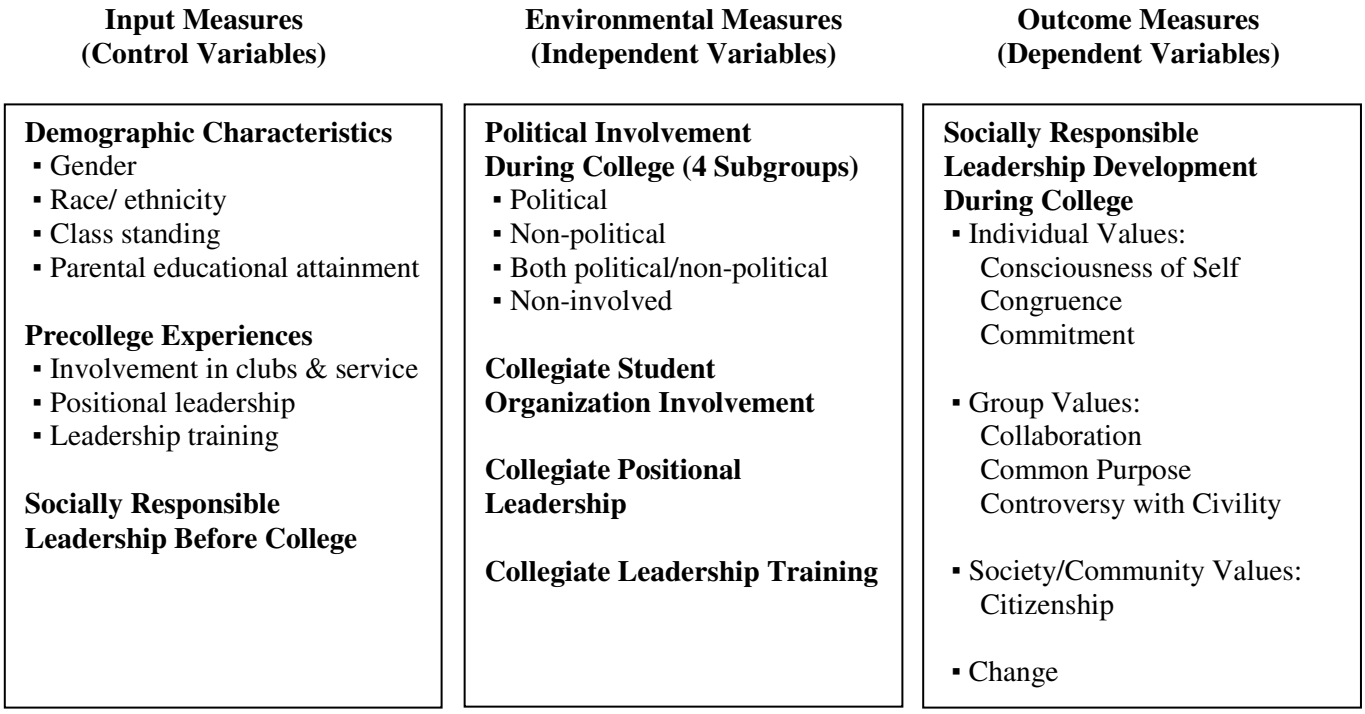

Figure 3.2 I-E-O Conceptual Framework Utilized in this Study

Block	Variables
Block 1	Demographic Characteristics (gender, racial/ethnic background, class standing)
Block 2	Socially Responsible Leadership Scale Quasi-pretest
Block 3	Precollege Experiences (precollege involvement in clubs and service, precollege positional leadership, precollege leadership training)
Block 4	Membership in Political Involvement Subgroups (involvement in political organizations, non-political organizations, both political/non-political organizations, no organizations)
Block 5	Collegiate Experiences (collegiate student organization involvement, collegiate positional leadership, collegiate leadership training)

Figure 3.3 Hierarchical Multiple Regression Variable Blocks

CHAPTER FOUR

RESULTS

This chapter presents the results from the statistical analyses conducted to answer the study's research questions. First, the overall sample is described based on students' demographic characteristics, academic background, and institutional data. Next, presented are key descriptive statistics about the respondents as a whole and by subgroup as they relate to the variables examined in this study. Then, results from each research question are reported in detail. The chapter concludes with a summary of key results.

Overall Sample Characteristics

The present study used data collected in the 2009 administration of the Multi-Institutional Study of Leadership (MSL). Of the 337,482 students who were invited to participate in the MSL, 115,632 students returned the questionnaire. After cases with missing responses to more than 10% of the study's core scale, the SRLS-R3, and the student organization types listed on the MSL-SS were removed from the sample, the final sample consisted of 96,257 undergraduate students from 101 institutions across the United States. Of the 96,257 students, there were several cases in which responses were not given for all items on the questionnaire. Those cases were retained in the sample, but nonresponses were treated as missing. Because the number of responses to each variable varied, results of the statistics reported here are based on valid responses only. The proportions reported and sample sizes (*n*) reported are specific to the given variable. This explains why for many variables the counts in the categories within the variable do not sum to 96,257.

The mean age of respondents was 21 years old (*SD* = 5.07). Female students (65%, *n* = 58,989) were overrepresented compared to male students (35%, *n* = 32,376). This was consistent with the distribution reflected in the 2006 MSL (Dugan & Komives, 2007). The majority of respondents identified as White/Caucasian (73%, *n* = 67,073), followed by Asian American/Asian (8%, *n* = 7,026), Multiracial (8%, *n* = 6,965 African American/Black (5%, *n* = 4,872), Latino/Hispanic (4%, *n* = 3,752), and Other/Not Reported (2%, *n* = 1,648). Seniors were most represented in the sample (29%, *n* = 27,866). Juniors were the second most represented (26%, *n* = 24,484) followed by first-year students (23%, *n* = 21,865) and sophomores (22%, *n* = 21,236). The proportion of full-time students (96%, *n* = 92,097) far exceeded part-time students (4%, *n* = 4,155). Transfer students comprised 21% (*n* = 20,106) of the sample; 15% (*n* = 13,387) were first-generation college students. More than half (52%, *n* = 46,666) indicated that their parents' highest attained education level was a bachelor's degree or master's degree. Twenty-eight percent (*n* = 25,639) of respondents indicated their parents' highest attained education level was some college or less compared to 12% (*n* = 11,042) indicating their parents' highest attained education level was a doctorate or professional degree and 8% (*n* = 6,838) indicating their parents' highest attained education level was an associate's degree.

The sample represented the wide diversity of colleges and universities across the US. The proportion of respondents who attended private institutions was 54% (*n* = 51,758) compared to students from public institutions (46%, *n* = 44,499). Students from medium-size institutions were more represented in the data (44%, *n* = 42,693) compared to small (19%, *n* = 18,434) and large institutions (37%, *n* = 35,130). The sample also

included a breadth of institutions ranging in mission based on Carnegie Classification. Students sampled attended research intensive institutions (35%, *n* = 33,893), baccalaureate institutions (18%, *n* = 17,736), two-year institutions (1%, *n* = 1,305), and doctoral/research and masters institutions (45%, *n* = 43,323). A total of 32,864 (34%) respondents attended religious-based institutions compared to 63,393 (66%) who attended secular ones. Institutions were situated in diverse locations as well, with the majority of respondents attending institutions in urban settings (59%, *n* = 56,290), followed by suburban (20%, *n* = 18,990), town (15%, *n* = 14,224), and rural (7%, *n* = 6,753).

The distribution of students across the four subgroups was the following: 370 (0.4%) students involved only in political organizations; 67,241 (69.9%) students involved only in non-political organizations; 15,808 (16.4%) students involved in both political/non-political organizations; and 12,838 (13.3%) students not involved in any type of student organizations.

Research Question #1

The first research question aimed to examine whether there were differences in students' demographic characteristics, precollege experiences, capacities for socially responsible leadership prior to entering college, and collegiate experiences based on political involvement. Presented first are the descriptive statistics about the respondents for the whole sample and then by subgroup (see Tables 4.1 and 4.2). Next reported are the results of the tests examining differences among the four student subgroups. Counts may not add to 96,257 due to nonresponses that were treated as missing.

Input Measures

Input measures were respondents' demographic characteristics, precollege experiences, and capacities for socially responsible leadership prior to entering college. All input measures were utilized as the study's covariates or control variables.

Demographic characteristics. Three variables representing respondents' demographic characteristics were utilized as covariates in this study (along with precollege experiences and Socially Responsible Leadership scale quasi-pretest): gender, racial/ethnic background, and class standing.

Gender. Female students (65%, n = 58,989) were overrepresented compared to male students (35%, n = 32,376). Results of a chi-square test for independence indicated a significant association between gender and student subgroup classification, χ^2 (3, n = 91,365) = 252.13, $p < .001$. Effect size, computed using Cramer's V statistic, was .05 (small). Representation by gender was similar in that there were more female students in all the subgroups compared to male students. Specifically, the non-political and both political/non-political subgroups were comprised of nearly two-thirds female students and one-third male students. The political and non-involved subgroups had the highest proportions of female students. The non-involved subgroup was the most different among the subgroups. Of the 11,977 respondents indicating no involvement in any student organizations, 71% (n = 8,491) were female compared to 29% (n = 3,486) male.

Racial/ethnic background. The majority of respondents identified as White/Caucasian (73%, n = 67,073), followed by Asian American/Asian (8%, n = 7,026), Multiracial (8%, n = 6,965), African American/Black (5%, n = 4,872), Latino/Hispanic (4%, n = 3,752), and Other/Not Reported (2%, n = 1,648). Results of a chi-square test for

independence indicated a significant association between race and student subgroup classification, χ^2 (15, n = 91,336) = 605.20, p < .001. Effect size was Cramer's V = .05 (small). Results indicated that the proportion of respondents by racial/ethnic group was fairly consistent between the non-political and both political/non-political subgroups. The proportions of respondents in the political and non-involved subgroups were the most different from the other subgroups, but in opposing directions. Approximately three-quarters of students in the non-political and both political/non-political subgroups identified as White/Caucasian; 79% of students identified as White/Caucasian in the political subgroup; 67% of students identified as White/Caucasian in the non-involved subgroup. The non-involved subgroup also had the highest proportion of students of color (i.e., racial/ethnic categories other than White/Caucasian and Other/Not Reported) (30% compared to 20-25% in other subgroups). The political subgroup had the lowest proportion of students of color (20%); particularly, it had the lowest proportion of Asian American/Asian students (2% compared to 6-8%) and African American/Black students (4% compared to 5-8%). Overall, only 4% of the sample was Latino/Hispanic. They were nearly equally present in the political, non-political, and both political/non-political subgroups (approximately 4%), but overrepresented (7%) in the non-involved subgroup.

Class standing. Representation by class standing was the following: seniors (29%, n = 27,866), juniors (26%, n = 24,484), and sophomores (22%, n = 21,236), first-year students (23%, n = 21,865). Results of a chi-square test for independence indicated a significant association between class standing and student subgroup classification, χ^2 (9, n = 95,451) = 362.99, p < .001. Effect size was Cramer's V = .04 (small). The highest proportion of students who were not involved in any student organizations was first-year

students. By comparison, seniors were the most involved in student organizations. First-year students were overrepresented in the political (30%, n = 109) and non-involved subgroups (28%, n = 3,473), whereas there were only 23% (n = 15,298) of first-year students in the non-political subgroup and 19% (n = 2,985) in the both political/non-political subgroup. Juniors were underrepresented in the political subgroup (21%, n = 77). Seniors were underrepresented in the non-involved subgroup (26%, n = 3,265), but overrepresented in the both political/non-political subgroup (33%, n = 5,132).

Precollege experiences. Three variables representing respondents' precollege experiences were used as covariates in this study: precollege involvement in clubs and service, precollege positional leadership, and precollege leadership training. Respondents rated frequency on a 4-point Likert scale (1 = Never, 2 = Sometimes, 3 = Often, 4 = Very Often). Higher scores indicated more frequent involvement in clubs and service, positional leadership, or leadership training before college.

Patterns were evident among the subgroups and were consistent among the three precollege experiences variables. The both political/non-political subgroup had the largest mean omnibus scores for all three variables followed by the non-political subgroup, political subgroup, and non-involved subgroup. However, the political and non-political subgroups were not different ($p < .001$) in their omnibus scores for the precollege involvement in clubs and service and precollege leadership training variables. Additionally, the political and non-involved subgroups were not different ($p < .001$) in their omnibus scores for the precollege positional leadership and precollege leadership training variables. Further results, including ANOVA statistics and post-hoc differences, are described below and presented in Tables 4.2-4.6.

Precollege involvement in clubs and service. Results indicated a mean of 2.14 (*SD* = .68) across all four subgroups for respondents (*n* = 96,203) participating in precollege in clubs and service (see Table 4.2). Mean scores (with standard deviations in parentheses) for the political subgroup, non-political subgroup, both political/non-political subgroup, and non-involved subgroup were 2.09 (*SD* = .68), 2.13 (*SD* = .65), 2.40 (*SD* = .69), and 1.88 (*SD* = .65), respectively. Respondents from all subgroups reported, on average, that they were sometimes involved in clubs and service before college.

Results indicated a statistically significant difference at the $p < .001$ level in mean precollege involvement in clubs and service omnibus scores among the four subgroups: $F(3, 96199) = 1{,}494.21$, $p < .001$ (see Table 4.3). Effect size was $\eta^2 = .04$ (small). Post-hoc tests using the Tukey HSD test indicated omnibus scores were significantly higher for respondents in the both political/non-political subgroup than in the other three subgroups (see Table 4.4). Mean omnibus scores were significantly lower for respondents in the non-involved subgroup than in the other three subgroups. The political and non-political subgroups were not different in their level of precollege involvement.

When analyzing each item individually across all four subgroups, results indicated a mean of 1.86 (*SD* = 1.11) for participating in student council or student government, 2.57 (*SD* = .92) for performing community service, 2.52 (*SD* = 1.08) for participating in community organizations, and 1.62 (*SD* = .83) for working with others for change to address societal problems. *F* statistics and effect sizes for individual items are provided in Table 4.3. All items differed significantly among the four subgroups with small effect sizes. Post-hoc tests using the Tukey HSD test indicated the same patterns

among the subgroups for all four items, with the largest significant mean differences observed between the both political/non-political and non-involved subgroups (medium effect sizes, d = .45-.60) (see Table 4.4). The 'worked with others for change to address societal problems' item was the only item the political subgroup mean scores exceeded those of the non-political subgroup (d = .27). For the other items, the political and non-political subgroups' means were not different. Additionally, the political and non-involved subgroups were not different in their level of precollege involvement in student council/government or community organizations.

Precollege positional leadership. Results indicated a mean of 2.35 (SD = .92) across all four subgroups for respondents (n = 96,210) participating in precollege leadership positions in student clubs, groups, sports, or community organizations (see Table 4.2). Mean scores (with standard deviations in parentheses) for the political subgroup, non-political subgroup, both political/non-political subgroup, and non-involved subgroup were 2.00 (SD = .86), 2.37 (SD = .90), 2.64 (SD = .90), and 1.85 (SD = .88), respectively.

Results indicated a statistically significant difference at the $p < .001$ level in mean precollege positional leadership omnibus scores among the four subgroups: $F(3, 96206) = 1{,}908.45$, $p < .001$ (see Table 4.3). Effect size was $\eta^2 = .06$ (small). Post-hoc tests using the Tukey HSD test indicated that omnibus scores were significantly higher for respondents in the both political/non-political subgroup than in the other three subgroups, with a large difference (d = .89) between the both political/non-political and the non-involved subgroups (see Table 4.5). Mean omnibus scores were significantly lower for respondents in the non-involved subgroup than in the non-political and both

political/non-political subgroups. Notably, the political and non-involved subgroups were not different ($p < .001$) in their level of precollege positional leadership.

When analyzing each item individually across all four subgroups, results indicated a mean of 2.73 ($SD = 1.19$) for holding leadership positions in student clubs and 1.96 ($SD = 1.02$) for holding leadership positions in community organizations. F statistics and effect sizes for individual items are provided in Table 4.3. Both items differed significantly among the four subgroups with small effect sizes. Post-hoc tests using the Tukey HSD test indicated that for both items, the largest difference in mean scores was between the both political/non-political and the non-involved subgroups (see Table 4.5). Mean scores for the non-political subgroup were greater than those for the political subgroup, but the political and non-involved subgroups were not different ($p < .001$) for both items' mean scores.

***Precollege leadership training*.** Results indicated a mean of 2.18 ($SD = .96$) across all four subgroups for respondents ($n = 96{,}235$) participating in precollege leadership training (see Table 4.2). Mean scores (with standard deviations in parentheses) for the political subgroup, non-political subgroup, both political/non-political subgroup, and non-involved subgroup were 2.07 ($SD = .95$), 2.17 ($SD = .95$), 2.40 ($SD = .98$), 1.92 ($SD = .95$), respectively.

Results indicated a statistically significant difference at the $p < .001$ level in mean scores among the four subgroups: $F(3, 96231) = 600.85$, $p < .001$ (see Table 4.3). Effect size was $\eta^2 = .02$ (small). Post-hoc tests using the Tukey HSD test indicated that mean scores were significantly higher for respondents in the both political/non-political subgroup than in the other three subgroups, with a medium size difference ($d = .50$)

between the both political/non-political and the non-involved subgroups (see Table 4.6). Mean scores were significantly lower for respondents in the non-involved subgroup than the non-political and both political/non-political subgroups. However, the non-involved and political subgroups were not different ($p < .001$) in their level of precollege leadership training. The political and non-political subgroups also were not different ($p < .001$).

Socially responsible leadership before college. In addition to students' demographics and precollege experiences, the Socially Responsible Leadership scale quasi-pretest (pre-SRLS), measuring respondents' self-reported precollege measures of the social change values, was utilized as a covariate in this study. Respondents rated their level of agreement with each item on a 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree). Higher scores indicated respondents' perceptions of greater capacity for socially responsible leadership before college. Results, including ANOVA statistics and post-hoc differences, are described below and presented in Tables 4.2, 4.7, and 4.8.

Results indicated a mean pre-SRLS omnibus score of 3.89 ($SD = .50$) across all four subgroups of respondents ($n = 96{,}138$) (see Table 4.2). Mean scores (with standard deviations in parentheses) for the political subgroup, non-political subgroup, both political/non-political subgroup, and non-involved subgroup were 3.87 ($SD = .50$), 3.90 ($SD = .49$), 3.94 ($SD = .52$), and 3.79 ($SD = .53$), respectively.

Results indicated a statistically significant difference at the $p < .001$ level in mean omnibus scores among the four subgroups: $F(3, 96134) = 242.32$, $p < .001$ (see Table 4.7). Effect size was $\eta^2 = .01$ (small). Post-hoc tests using the Tukey HSD test indicated

that omnibus scores were significantly higher for respondents in the both political/non-political subgroup than in the non-political and non-involved subgroups (see Table 4.8). Mean omnibus scores were significantly lower for respondents in the non-involved subgroup than in the non-political and both political/non-political subgroups. Notably, the political subgroup was not different from the other three subgroups in their mean omnibus scores.

Environment Measures

Environment measures were respondents' collegiate experiences, which included collegiate student organization involvement, collegiate positional leadership, and collegiate leadership training. All environment measures were utilized as the study's independent variables.

Collegiate experiences. Three variables representing respondents' collegiate experiences were utilized as independent variables in this study: collegiate student organization involvement, collegiate positional leadership, and collegiate leadership training. For the first two variables, respondents rated frequency on a 5-point Likert scale (1 = Never, 2 = Once, 3 = Sometimes, 4 = Many Times, 5 = Much of the Time). Higher scores indicated more frequent involvement in campus-based student organizations and more frequent participation in a leadership position in campus-based student organizations during college. For the collegiate leadership training variable, respondents rated frequency on a 4-point Likert scale (1 = Never, 2 = Once, 3 = Sometimes, 4 = Often). Higher scores indicated more frequent participation in campus-based leadership training or education programs during college.

Patterns were evident among the subgroups and were similar to those of the precollege experience variables. Mean scores were significantly higher for the both political/non-political subgroup followed by the non-political subgroup, political subgroup, and the non-involved subgroup. Whereas all subgroup differences were significant for the collegiate student organization involvement variable, the political subgroup was not different ($p < .001$) from the non-involved subgroup in their level of collegiate positional leadership and collegiate leadership training. Further results, including ANOVA statistics and post-hoc differences, are described below and presented in Tables 4.2, 4.9, and 4.10.

Collegiate student organization involvement. Results indicated a mean of 3.15 ($SD = 1.45$) in collegiate student organization involvement across all four subgroups of respondents ($n = 96{,}242$) (see Table 4.2). Mean scores (with standard deviations in parentheses) for the political subgroup, non-political subgroup, both political/non-political subgroup, and non-involved subgroup were 2.11 ($SD = 1.08$), 3.32 ($SD = 1.35$), 3.94 ($SD = 1.11$), 1.34 ($SD = .73$), respectively.

Results indicated a statistically significant difference at the $p < .001$ level in mean scores among the four subgroups: $F(3, 96238) = 11774.72$, $p < .001$ (see Table 4.9). Effect size was $\eta^2 = .27$ (large). Post-hoc tests using the Tukey HSD test indicated the same pattern as the precollege experience variables: mean scores were significantly higher for respondents in the both political/non-political subgroup than in the other three subgroups (see Table 4.10). Mean scores were significantly lower for respondents in the non-involved subgroup than in the other three subgroups. The non-political subgroup mean score was significantly higher than that of the political subgroup. All mean score

differences among the subgroups were statistically significant. Among all of the input and environment measures, collegiate student organization involvement had the largest effect sizes for the differences between the subgroups, with the largest difference (d = 2.84) observed between the both political/non-political and the non-involved subgroups.

Collegiate positional leadership. Results indicated a mean of 2.15 (SD = 1.50) in collegiate positional leadership across all four subgroups of respondents (n = 96,251) (see Table 4.2). Mean scores (with standard deviations in parentheses) for the political subgroup, non-political subgroup, both political/non-political subgroup, and non-involved subgroup were 1.24 (SD = .73), 2.17 (SD = 1.49), 2.93 (SD = 1.60), 1.08 (SD = .43), respectively.

Results indicated a statistically significant difference at the $p < .001$ level in mean scores among the four subgroups: $F(3, 96247) = 4097.78$, $p < .001$ (see Table 4.9). Effect size was $\eta^2 = .11$ (medium). Post-hoc tests using the Tukey HSD test indicated that mean scores were significantly higher for respondents in the both political/non-political subgroup than in the other three subgroups, with a large difference (d = 1.82) for the difference in scores between the both political/non-political and the non-involved subgroups (see Table 4.10). Mean scores were significantly lower for respondents in the non-involved subgroup than in the non-political and both political/non-political subgroups. Notably, the political subgroup was not different ($p < .001$) from the non-involved subgroup in their level of collegiate positional leadership.

Collegiate leadership training. Results indicated a mean of 1.18 (SD = .39) in collegiate leadership training across all four subgroups of respondents (n = 96,236) (see Table 4.2). Mean scores (with standard deviations in parentheses) for the political

subgroup, non-political subgroup, both political/non-political subgroup, and non-involved subgroup were 1.06 (*SD* = .25), 1.16 (*SD* = .36), 1.36 (*SD* = .56), 1.03 (*SD* = .18), respectively.

Results indicated a statistically significant difference at the $p < .001$ level in mean omnibus scores among the four subgroups: $F(3, 96232) = 1855.37$, $p < .001$ (see Table 4.9). Effect size was $\eta^2 = .05$ (small). Post-hoc tests using the Tukey HSD test indicated that omnibus scores were significantly higher for respondents in the both political/non-political subgroup than in the other three subgroups, with a large effect size ($d = .90$) between the both political/non-political and the non-involved subgroups (see Table 4.10). Mean omnibus scores were significantly lower for respondents in the non-involved subgroup than in the non-political and both political/non-political subgroups. Notably, the political subgroup was not different ($p < .001$) from the non-involved subgroup in their level of collegiate leadership training.

Research Question #2

The second research question aimed to examine whether there were subgroup differences in students' socially responsible leadership during college. Using a significance level $\alpha = .001$, ANOVA was conducted to test for differences among the four student subgroups based on omnibus scores of students' self-reports on the SRLS-R3. Additionally, a one-way between-groups multivariate analysis of variance (MANOVA) was conducted to compare the eight mean subscale scores of students' self-reports on the SRLS-R3 among the four student subgroups, using a significance level $\alpha = .001$. Respondents rated their level of agreement on a 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree). Higher scores

indicated respondents' greater capacity for socially responsible leadership during college. All outcome measures were utilized as the study's dependent variables. Results, including ANOVA and MANOVA statistics and post-hoc differences, are described below and presented in Tables 4.11-4.16.

Results indicated a mean SRLS-R3 omnibus score of 3.95 (SD = 0.40) across all four subgroups of respondents (n = 96,257) (see Table 4.11). Mean scores (with standard deviations in parentheses) for the political subgroup, non-political subgroup, both political/non-political, and non-political subgroup were 3.96 (SD = .37), 3.95 (SD = .38), 4.07 (SD = .41), and 3.83 (SD = .43), respectively.

Results indicated significant differences at the $p < .001$ level in mean omnibus scores among the four subgroups: $F(3, 96253) = 901.50$, $p < .001$ (see Table 4.12). Effect size was $\eta^2 = .03$ (small). Post-hoc tests indicated that omnibus scores were significantly higher for respondents in the both political/non-political subgroup than in the other three subgroups, with a fairly large difference (d = .58) between the both political/non-political and the non-involved subgroups (see Table 4.13). Mean omnibus scores were significantly lower for respondents in the non-involved subgroup than in the other three subgroups. Notably, the political subgroup mean omnibus score was not different ($p <$ .001) from the non-political subgroup mean omnibus score.

Using MANOVA, the eight SRLS-R3 subscale mean scores were tested for any subgroup differences. Results indicated significant differences at the $p < .001$ level in mean SRLS-R3 subscale scores among the four student subgroups: $F(24, 288744) =$ 288.13, $p < .001$; Pillai's Trace = .07 (see Table 4.14). Although the mean differences were statistically significant, the effect size was small. The partial eta squared value was

.023, meaning that political involvement by itself only accounted for 2.3% of the overall variance in the combined SRLS-R3 subscale scores. When the results for the SRLS-R3 subscale scores were considered separately, differences in mean subscale scores among the subgroups were small, but significant for each subscale. *F* statistics and effect sizes for individual subscales are provided in Table 4.15. All items differed significantly among the four subgroups with small effect sizes. Post-hoc tests using the Tukey HSD indicated that the both political/non-political subgroup had the highest mean scores on all eight subscales, whereas the non-involved subgroup had the lowest mean scores for all eight subscales (see Table 4.16). While the political subgroup was not statistically different ($p < .001$) from the non-political subgroup on all subscales, on five subscales the political subgroup was numerically a little higher than the non-political subgroup as well as equaled (i.e., not significantly different from) the both political/non-political subgroup. These subscales were consciousness of self, congruence, commitment, controversy with civility, and change. On three subscales, the political subgroup was numerically a little lower than the non-political subgroup, but the both political/non-political subgroup had higher scores than the political subgroup (collaboration, common purpose, and citizenship).The non-involved subgroup had lower scores than the other three subgroups for all subscales except for the change subscale. For the change subscale, the non-involved subgroup was not different ($p < .001$) from the political subgroup.

All four subgroups of respondents reported their highest scores on the SCM value of commitment (see Table 4.11). Respondents in the political and non-involved subgroups reported their lowest scores on the SCM value of citizenship, whereas respondents in the both political/non-political and non-political subgroups reported their

lowest scores on the SCM value of change. These descriptive statistics present a fairly consistent picture of college students' leadership development from the 2006 MSL data to the present. Analyses of the 2006 MSL data revealed students also reported the highest scores on the commitment value and lowest on the change value (Dugan & Komives, 2007). Students reported neutrality approaching agreement (i.e., hovered around a score of four which is the equivalent of agreement) across the SCM values.

Research Question #3

Hierarchical multiple regression was used to determine the variance explained in the dependent variable SRLS-R3 omnibus score and what differences existed among the four student subgroups, after controlling for students' demographic characteristics (gender, racial/ethnic background, and class standing); precollege experiences (precollege involvement in clubs and service, precollege positional leadership, and precollege leadership training); and precollege measures of the social change values (pre-SRLS). Regression also was used to assess the effect of collegiate experiences (student organization involvement, positional leadership, and leadership training) after student subgroup membership was taken into account. Significance was assessed at the .001 level, consistent with previous analyses, given the large sample size in this study. Beta coefficients and p-values were examined to determine how much each independent variable contributed to the equation after all blocks of variables were entered and to assess which independent variables were the best predictors of the dependent variable.

Results of the hierarchical multiple regression analysis (see Table 4.17) indicated that the model as a whole (including all five block of variables) was significant $F(17,$

90347) = 2976.37, $p < .001$. Predictor variables explained 35.9% of the variance of the outcome omnibus SRLS-R3 scores.

In Block 1, input variables of respondents' demographic characteristics, specifically gender, racial/ethnic background, and class standing, explained 2.2% of the total variance in SRLS-R3, $F(7, 90357) = 290.00$, $p < .001$. Class standing emerged as the strongest predictor among the input variables ($\beta = .09$). Gender ($\beta = .07$) also entered the equation as a significant, positive predictor. Additionally, all racial/ethnic categories but Other/Not Reported made statistically significant contributions to the equation (β varying from -.07 to .02). Asian American/Asian was the strongest predictor among the racial/ethnic categories ($\beta = -.07$), and it was the only one that made a negative contribution to the equation. African American/Black ($\beta = .04$) also contributed to the equation in Block 1.

After entry of the pre-SRLS into Block 2, the total variance explained by the model increased to 31.5%, $F(8, 90356) = 38686.22$, $p < .001$. The pre-SRLS measure had the largest beta coefficient in the model ($\beta = .55$). Significance of the predictors remained the same as they were in Block 1 except identification as Latino/Hispanic was no longer significant to the equation.

After entry of the precollege experiences variables (precollege involvement in clubs and service, precollege positional leadership, and precollege leadership training) into Block 3, the total variance explained by the model increased by 1.4%, $F(11, 90353) = 630.52$, $p < .001$. All three predictors made significant, positive contributions to the equation: precollege leadership training ($\beta = .07$), precollege involvement in clubs and service ($\beta = .07$), and precollege positional leadership ($\beta = .02$). After entry of these

precollege experiences, significance of most input variables and the pre-SRLS measure remained the same as they were in Block 2, except for Other/Not Reported, which became significant. This racial/ethnic background category emerged as a significant, positive predictor to the equation (β = -.01). The African American/Black racial/ethnic background category was no longer significant to the equation.

The study's principle independent variable, students' political involvement as represented the student subgroups variable, was entered into Block 4 of the equation. It explained only 1% of the variance of the SRLS-R3, which was the least amount of variance by any set of predictors in the equation, $F(14, 90350) = 436.67$, $p < .001$. The three subgroup vectors emerged with positive, significant relationships with the outcome measure. The strongest of these was involvement in both political/non-political organizations compared to no involvement (β = .13), followed by involvement in non-political organizations (β = .07), and involvement in political organizations (β = .01). When these political involvement variables were entered into the equation, precollege positional leadership was no longer significant.

After entry of the collegiate experiences variables (collegiate student organization involvement, collegiate positional leadership, and collegiate leadership training) into Block 5, the total variance explained by the model increased by 2%, $F(17, 90347) = 948.21$, $p < .001$. These variables were entered as the final block to assess the effects on the outcome measure of socially responsible leadership development after political involvement (i.e., subgroup membership) was taken into account. The involvement subgroup variables made small significant contributions to the equation. The beta value for political involvement remained the same since being entered in Block 4 (β = .01), but

the beta values for non-political involvement (β = -.02) and both political/non-political involvement dropped (β = .04).

Additionally, all but two other predictors made positive, significant contributions to the equation in Block 5. Precollege positional leadership reemerged as a significant predictor, but it was negatively related to the outcome measure (β = -.03). Asian American/Asian students continued to make a significant, negative contribution to the equation (β = -.07). The strongest predictor was still pre-SRLS (β = .50), followed by collegiate student organization involvement (β = .11), class standing (β = .10), precollege leadership training (β = .06), collegiate positional leadership (β = .05), and collegiate leadership training (β = .05). Gender and the racial/ethnic background categories except for Latino/Hispanic also were significant contributions to the equation, ranging from beta values of -.01 to .04. The Latino/Hispanic racial/ethnic background category remained insignificant in the equation. With all other variables controlled, African American/Black and Multiracial students had higher leadership outcome scores than the referent group (i.e., White students), whereas Asian American/Asian students scored lower than the referent group.

Chapter Summary

Chapter Four reported the findings of this study. Key results showed several differences of students based on their political involvement. Results also revealed differences in socially responsible leadership development based on political involvement. Lastly, results of a hierarchical multiple regression analysis showed how varying input and environment variables, including political involvement, contributed to students' socially responsible leadership development. The final chapter will present a

discussion of the findings as they relate to the body of research literature concerning the topics addressed in this study. Included in the discussion will be the study's limitations and significance, implications for practice and research, and suggestions for future research.

Tables

Table 4.1 *Descriptive Statistics for Demographic Characteristics by Total Sample and Student Subgroup*

			Student Subgroup							
	Total		Political		Non-Political		Both		Non-Involved	
Demographic Characteristic (total *n)*	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Gender (*n* = 91,365)										
Female	58,989	64.6	249	69.2	40,524	63.4	9,725	64.4	8,491	70.9
Male	32,376	35.4	111	30.8	23,410	36.6	5,369	35.6	3,486	29.1
Racial/ Ethnic Background (*n* = 91,336)										
African American/ Black	4,872	5.3	13	3.6	3,267	5.1	676	4.5	916	7.6
Asian American/ Asian	7,026	7.7	6	1.7	5,167	8.1	893	5.9	960	8.0
Latino/ Hispanic	3,752	4.1	14	3.9	2,395	3.7	541	3.6	802	6.7
Multiracial	6,965	7.6	37	10.3	4,643	7.3	1,315	8.7	970	8.1
White/ Caucasian	67,073	73.4	285	79.2	47,336	74.1	11,389	75.4	8,063	67.3
Other/ Not Reported	1,648	1.8	5	1.4	1,076	1.7	294	1.9	273	2.3
Class Standing (*n* = 95,451)										
Freshman	21,865	22.9	109	29.9	15,298	22.9	2,985	19.0	3,473	27.5
Sophomore	21,236	22.2	79	21.6	15,022	22.5	3,389	21.6	2,746	21.8
Junior	24,484	25.7	77	21.1	17,075	25.6	4,195	26.7	3,137	24.9
Senior	27,866	29.2	100	27.4	19,369	29.0	5,132	32.7	3,265	25.9

Note. Statistics are based on valid responses to each variable. Totals do not sum to 96,257 due to nonresponses that were treated as missing.

Table 4.2 *Descriptive Statistics for Precollege Experiences, Socially Responsible Leadership Scale Quasi-Pretest, and Collegiate Experiences by Total Sample and Student Subgroup*

				Student Subgroup							
		Total		Political		Non-Political		Both		Non-Involved	
Variable	Individual Item	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Precollege Involvement in Clubs & Service[a]	Omnibus	2.14	0.68	2.09	0.68	2.13	0.65	2.40	0.69	1.88	0.65
	Participated in student council or student government	1.86	1.11	1.72	1.06	1.85	1.10	2.12	1.18	1.59	0.97
	Performed community service	2.57	0.92	2.47	0.91	2.58	0.90	2.79	0.90	2.24	0.94
	Participated in community organizations	2.52	1.08	2.37	1.07	2.54	1.08	2.70	1.05	2.23	1.08
	Worked with others for change to address societal problems	1.62	0.83	1.79	0.93	1.56	0.78	1.98	0.95	1.46	0.76
Precollege Positional Leadership[b]	Omnibus	2.35	0.92	2.01	0.86	2.37	0.90	2.64	0.90	1.85	0.88
	Held leadership positions in student clubs, groups, or sports	2.73	1.19	2.28	1.16	2.79	1.17	3.04	1.09	2.07	1.20
	Took leadership positions in community organizations	1.96	1.02	1.73	0.95	1.96	1.01	2.23	1.07	1.63	0.91
Precollege Leadership Training[c]	Participated in training or education that developed one's leadership skills	2.18	0.96	2.07	0.95	2.17	0.95	2.40	0.98	1.92	0.95
Socially Responsible Leadership Scale Quasi-Pretest[d]	Omnibus	3.89	0.50	3.87	0.50	3.90	0.49	3.94	0.52	3.79	0.53
	Consciousness of Self	3.52	1.17	3.43	1.21	3.56	1.15	3.48	1.18	3.39	1.21
	Congruence	4.04	0.81	4.10	0.80	4.05	0.80	4.08	0.83	3.95	0.83
	Commitment	4.27	0.73	4.23	0.72	4.28	0.72	4.27	0.77	4.19	0.75
	Collaboration	3.94	0.79	3.83	0.77	3.95	0.77	3.98	0.80	3.80	0.83
	Common Purpose	4.00	0.71	3.97	0.70	4.01	0.70	4.03	0.73	3.90	0.75
	Controversy with Civility	3.94	0.81	4.05	0.83	3.94	0.80	4.01	0.85	3.89	0.81
	Citizenship	3.83	0.84	3.79	0.84	3.83	0.83	3.99	0.84	3.64	0.87
	Change	3.60	0.90	3.58	0.90	3.60	0.89	3.65	0.92	3.54	0.91

Table 4.2 (*continued*)

				Student Subgroup							
		Total		Political		Non-Political		Both		Non-Involved	
Variable	Individual Item	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Collegiate Student Organization Involvement[e]	Been an involved member in college organizations	3.15	1.45	2.11	1.08	3.32	1.35	3.94	1.11	1.34	0.73
Collegiate Positional Leadership[f]	Held a leadership position in a college organization	2.15	1.50	1.24	0.73	2.17	1.49	2.93	1.60	1.08	0.43
Collegiate Leadership Training[g]	Been involved in leadership training or education	1.18	0.39	1.06	0.25	1.16	0.36	1.36	0.56	1.03	0.18

Note. All items except for the pre-SRLS asked respondents to report the frequency of engaging in the items asked. [a-c]Respondents rated frequency on a 4-point Likert scale (1 = Never, 2 = Sometimes, 3 = Often, 4 = Very Often). Higher scores indicated more frequent involvement in clubs and service, positional leadership, or leadership training before college. [d]Respondents rated their level of agreement on a 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree). Higher scores indicated respondents' greater capacity for socially responsible leadership before college. [e-f]Respondents rated frequency on a 5-point Likert scale (1 = Never, 2 = Once, 3 = Sometimes, 4 = Many Times, 5 = Much of the Time). Higher scores indicated more frequent involvement in campus-based student organizations and more frequent participation in a leadership position in campus-based student organizations during college. [g]Respondents rated frequency on a 4-point Likert scale (1 = Never, 2 = Once, 3 = Sometimes, 4 = Often). Higher scores indicated more frequent participation in campus-based leadership training or education programs during college.

Table 4.3 *ANOVA Statistics for Precollege Experiences*

Variable	Individual Item	*F*	*df1, df2*	*p*	η^2
Precollege Involvement in Clubs and Service	Omnibus	1494.21	3, 96199	***	.04
	Participated in student council or student government	569.52	3, 96199	***	.02
	Performed community service	891.63	3, 96199	***	.03
	Participated in community organizations	482.26	3, 96199	***	.01
	Worked with others for change to address societal problems	1363.03	3, 96199	***	.04
Precollege Positional Leadership	Omnibus	1908.45	3, 96206	***	.06
	Held leadership positions in student clubs, groups, or sports	1853.14	3, 96206	***	.05
	Took leadership positions in community organizations	837.49	3, 96206	***	.03
Precollege Leadership Training	Participated in training or education that developed one's leadership skills	600.85	3, 96231	***	.02

****p*<.001

Table 4.4 *ANOVA Post-Hoc Tests Mean Comparisons for Precollege Involvement in Clubs and Service*

Individual Item	Student Subgroup	Student Subgroup	Mean Difference	SE	Sig.	Effect Size (*d*)
Omnibus	1 Political	2 Non-Political	-.045	.034	.555	-.07
		3 Both	-.315	.035	.000	-.46
		4 Non-Involved	.206	.035	.000	.31
	2 Non-Political	1 Political	.045	.034	.555	-.07
		3 Both	-.270	.006	.000	-.40
		4 Non-Involved	.252	.006	.000	.38
	3 Both	1 Political	.315	.035	.000	-.46
		2 Non-Political	.270	.006	.000	-.40
		4 Non-Involved	.521	.008	.000	.78
	4 Non-Involved	1 Political	-.206	.035	.000	.31
		2 Non-Political	-.252	.006	.000	.38
		3 Both	-.521	.008	.000	.78
Participated in student council or student government	1 Political	2 Non-Political	-.134	.057	.089	-.12
		3 Both	-.404	.058	.000	-.36
		4 Non-Involved	.130	.058	.109	.13
	2 Non-Political	1 Political	.134	.057	.089	-.12
		3 Both	-.271	.010	.000	-.24
		4 Non-Involved	.264	.011	.000	.26
	3 Both	1 Political	.404	.058	.000	-.36
		2 Non-Political	.271	.010	.000	-.24
		4 Non-Involved	.535	.013	.000	.50
	4 Non-Involved	1 Political	-.130	.058	.109	.13
		2 Non-Political	-.264	.011	.000	.26
		3 Both	-.535	.013	.000	.50
Performed community service	1 Political	2 Non-Political	-.114	.047	.076	-.13
		3 Both	-.326	.048	.000	-.36
		4 Non-Involved	.227	.048	.000	.25
	2 Non-Political	1 Political	.114	.047	.076	-.13
		3 Both	-.213	.008	.000	-.24
		4 Non-Involved	.341	.009	.000	.37
	3 Both	1 Political	.326	.048	.000	-.36
		2 Non-Political	.213	.008	.000	-.24
		4 Non-Involved	.553	.011	.000	.60
	4 Non-Involved	1 Political	-.227	.048	.000	.25
		2 Non-Political	-.341	.009	.000	.37
		3 Both	-.553	.011	.000	.60
Participated in community organizations	1 Political	2 Non-Political	-.162	.056	.020	-.15
		3 Both	-.332	.056	.000	-.31
		4 Non-Involved	.147	.057	.047	.14
	2 Non-Political	1 Political	.162	.056	.020	-.15
		3 Both	-.169	.009	.000	-.16
		4 Non-Involved	.309	.010	.000	.29
	3 Both	1 Political	.332	.056	.000	-.31
		2 Non-Political	.169	.009	.000	-.16
		4 Non-Involved	.478	.013	.000	.45
	4 Non-Involved	1 Political	-.147	.057	.047	.14
		2 Non-Political	-.309	.010	.000	.29
		3 Both	-.478	.013	.000	.45

Table 4.4 (*continued*)

Individual Item	Student Subgroup	Student Subgroup	Mean Difference	SE	Sig.	Effect Size (*d*)
Worked with others for change to address societal problems	1 Political	2 Non-Political	.229	.042	.000	.27
		3 Both	-.198	.043	.000	-.21
		4 Non-Involved	.322	.043	.000	.38
	2 Non-Political	1 Political	-.229	.042	.000	.27
		3 Both	-.427	.007	.000	-.49
		4 Non-Involved	.093	.008	.000	.12
	3 Both	1 Political	.198	.043	.000	-.21
		2 Non-Political	.427	.007	.000	-.49
		4 Non-Involved	.519	.010	.000	.61
	4 Non-Involved	1 Political	-.322	.043	.000	.38
		2 Non-Political	-.093	.008	.000	.12
		3 Both	-.519	.010	.000	.61

Table 4.5 *ANOVA Post-Hoc Tests Mean Comparisons for Precollege Positional Leadership*

Individual Item	Student Subgroup	Student Subgroup	Mean Difference	SE	Sig.	Effect Size (*d*)
Omnibus	1 Political	2 Non-Political	-.369	.047	.000	-.42
		3 Both	-.632	.047	.000	-.72
		4 Non-Involved	.155	.047	.006	.18
	2 Non-Political	1 Political	.369	.047	.000	-.42
		3 Both	-.263	.008	.000	-.29
		4 Non-Involved	.524	.009	.000	.59
	3 Both	1 Political	.632	.047	.000	-.72
		2 Non-Political	.263	.008	.000	-.29
		4 Non-Involved	.787	.011	.000	.89
	4 Non-Involved	1 Political	-.155	.047	.006	.18
		2 Non-Political	-.524	.009	.000	.59
		3 Both	-.787	.011	.000	.89
Held leadership positions in student clubs, groups, or sports	1 Political	2 Non-Political	-.512	.060	.000	-.44
		3 Both	-.765	.061	.000	-.68
		4 Non-Involved	.210	.061	.003	.18
	2 Non-Political	1 Political	.512	.060	.000	-.44
		3 Both	-.253	.010	.000	-.22
		4 Non-Involved	.722	.011	.000	.61
	3 Both	1 Political	.765	.061	.000	-.68
		2 Non-Political	.253	.010	.000	-.22
		4 Non-Involved	.975	.014	.000	.85
	4 Non-Involved	1 Political	-.210	.061	.003	.18
		2 Non-Political	-.722	.011	.000	.61
		3 Both	-.975	.014	.000	.85
Took leadership positions in community organizations	1 Political	2 Non-Political	-.226	.053	.000	-.23
		3 Both	-.499	.053	.000	-.49
		4 Non-Involved	.100	.053	.237	.11
	2 Non-Political	1 Political	.226	.053	.000	-.23
		3 Both	-.273	.009	.000	-.26
		4 Non-Involved	.326	.010	.000	.34
	3 Both	1 Political	.499	.053	.000	-.49
		2 Non-Political	.273	.009	.000	-.26
		4 Non-Involved	.598	.012	.000	.61
	4 Non-Involved	1 Political	-.100	.053	.237	.11
		2 Non-Political	-.326	.010	.000	.34
		3 Both	-.598	.012	.000	.61

Table 4.6 *ANOVA Post-Hoc Tests Mean Comparisons for Precollege Leadership Training*

Individual Item	Student Subgroup	Student Subgroup	Mean Difference	SE	Sig.	Effect Size (*d*)
Participated in training or education that developed one's leadership skills	1 Political	2 Non-Political	-.101	.050	.176	-.11
		3 Both	-.325	.050	.000	-.34
		4 Non-Involved	.155	.050	.011	.16
	2 Non-Political	1 Political	.101	.050	.176	-.11
		3 Both	-.224	.008	.000	-.23
		4 Non-Involved	.257	.009	.000	.27
	3 Both	1 Political	.325	.050	.000	-.34
		2 Non-Political	.224	.008	.000	-.23
		4 Non-Involved	.480	.011	.000	.50
	4 Non-Involved	1 Political	-.155	.050	.011	.16
		2 Non-Political	-.257	.009	.000	.27
		3 Both	-.480	.011	.000	.50

Table 4.7 *ANOVA Statistics for Socially Responsible Leadership Scale Quasi-Pretest*

Individual Item	*F*	*df1, df2*	*p*	η^2
Omnibus	242.32	3, 96134	***	.01
Consciousness of Self	83.05	3, 96134	***	.00
Congruence	69.35	3, 96134	***	.00
Commitment	64.52	3, 96134	***	.00
Collaboration	158.69	3, 96134	***	.00
Common Purpose	96.57	3, 96134	***	.00
Controversy with Civility	64.99	3, 96134	***	.00
Citizenship	409.03	3, 96134	***	.01
Change	37.18	3, 96134	***	.00

****p*<.001

Table 4.8 *ANOVA Post-Hoc Tests Mean Comparisons for Socially Responsible Leadership Scale Quasi-Pretest*

Individual Item	Student Subgroup	Student Subgroup	Mean Difference	SE	Sig.	Effect Size (*d*)
Omnibus	1 Political	2 Non-Political	-.032	.026	.616	-.06
		3 Both	-.063	.026	.076	-.12
		4 Non-Involved	.086	.026	.006	.17
	2 Non-Political	1 Political	.032	.026	.616	-.06
		3 Both	-.032	.004	.000	-.06
		4 Non-Involved	.118	.005	.000	.23
	3 Both	1 Political	.063	.026	.076	-.12
		2 Non-Political	.032	.004	.000	-.06
		4 Non-Involved	.149	.006	.000	.28
	4 Non-Involved	1 Political	-.086	.026	.006	.17
		2 Non-Political	-.118	.005	.000	.23
		3 Both	-.149	.006	.000	.28
Consciousness of Self	1 Political	2 Non-Political	-.128	.061	.150	-.11
		3 Both	-.051	.061	.841	-.04
		4 Non-Involved	.039	.061	.919	.03
	2 Non-Political	1 Political	.128	.061	.150	-.11
		3 Both	.077	.010	.000	.07
		4 Non-Involved	.167	.011	.000	.14
	3 Both	1 Political	.051	.061	.841	-.04
		2 Non-Political	-.077	.010	.000	.07
		4 Non-Involved	.090	.014	.000	.08
	4 Non-Involved	1 Political	-.039	.061	.919	.03
		2 Non-Political	-.167	.011	.000	.14
		3 Both	-.090	.014	.000	.08
Congruence	1 Political	2 Non-Political	.044	.042	.719	.06
		3 Both	.019	.043	.971	.02
		4 Non-Involved	.146	.043	.003	.18
	2 Non-Political	1 Political	-.044	.042	.719	.06
		3 Both	-.025	.007	.002	-.03
		4 Non-Involved	.102	.008	.000	.13
	3 Both	1 Political	-.019	.043	.971	.02
		2 Non-Political	.025	.007	.002	-.03
		4 Non-Involved	.127	.010	.000	.15
	4 Non-Involved	1 Political	-.146	.043	.003	.18
		2 Non-Political	-.102	.008	.000	.13
		3 Both	-.127	.010	.000	.15
Commitment	1 Political	2 Non-Political	-.054	.038	.498	-.07
		3 Both	-.037	.039	.777	-.05
		4 Non-Involved	.044	.039	.659	.06
	2 Non-Political	1 Political	.054	.038	.498	-.07
		3 Both	.017	.006	.045	.02
		4 Non-Involved	.098	.007	.000	.13
	3 Both	1 Political	.037	.039	.777	-.05
		2 Non-Political	-.017	.006	.045	.02
		4 Non-Involved	.081	.009	.000	.11
	4 Non-Involved	1 Political	-.044	.039	.659	.06
		2 Non-Political	-.098	.007	.000	.13
		3 Both	-.081	.009	.000	.11

Table 4.8 (*continued*)

Variable	Student Subgroup	Student Subgroup	Mean Difference	SE	Sig.	Effect Size (*d*)
Collaboration	1 Political	2 Non-Political	-.128	.041	.010	-.17
		3 Both	-.153	.041	.001	-.19
		4 Non-Involved	.027	.041	.916	.03
	2 Non-Political	1 Political	.128	.041	.010	-.17
		3 Both	-.025	.007	.002	-.03
		4 Non-Involved	.155	.008	.000	.19
	3 Both	1 Political	.153	.041	.001	-.19
		2 Non-Political	.025	.007	.002	-.03
		4 Non-Involved	.180	.009	.000	.22
	4 Non-Involved	1 Political	-.027	.041	.916	.03
		2 Non-Political	-.155	.008	.000	.19
		3 Both	-.180	.009	.000	.22
Common Purpose	1 Political	2 Non-Political	-.040	.037	.703	-.06
		3 Both	-.060	.037	.372	-.08
		4 Non-Involved	.069	.037	.257	.10
	2 Non-Political	1 Political	.040	.037	.703	-.06
		3 Both	-.020	.006	.007	-.03
		4 Non-Involved	.109	.007	.000	.15
	3 Both	1 Political	.060	.037	.372	-.08
		2 Non-Political	.020	.006	.007	-.03
		4 Non-Involved	.129	.008	.000	.18
	4 Non-Involved	1 Political	-.069	.037	.257	.10
		2 Non-Political	-.109	.007	.000	.15
		3 Both	-.129	.008	.000	.18
Controversy with Civility	1 Political	2 Non-Political	.119	.042	.024	.15
		3 Both	.041	.042	.770	.05
		4 Non-Involved	.168	.043	.000	.20
	2 Non-Political	1 Political	-.119	.042	.024	.15
		3 Both	-.078	.007	.000	-.10
		4 Non-Involved	.049	.008	.000	.06
	3 Both	1 Political	-.041	.042	.770	.05
		2 Non-Political	.078	.007	.000	-.10
		4 Non-Involved	.127	.010	.000	.15
	4 Non-Involved	1 Political	-.168	.043	.000	.20
		2 Non-Political	-.049	.008	.000	.06
		3 Both	-.127	.010	.000	.15
Citizenship	1 Political	2 Non-Political	-.046	.043	.722	-.06
		3 Both	-.198	.044	.000	-.24
		4 Non-Involved	.150	.044	.004	.18
	2 Non-Political	1 Political	.046	.043	.722	-.06
		3 Both	-.152	.007	.000	-.18
		4 Non-Involved	.195	.008	.000	.23
	3 Both	1 Political	.198	.044	.000	-.24
		2 Non-Political	.152	.007	.000	-.18
		4 Non-Involved	.347	.010	.000	.41
	4 Non-Involved	1 Political	-.150	.044	.004	.18
		2 Non-Political	-.195	.008	.000	.23
		3 Both	-.347	.010	.000	.41

Table 4.8 (*continued*)

Variable	Student Subgroup	Student Subgroup	Mean Difference	SE	Sig.	Effect Size (*d*)
Change	1 Political	2 Non-Political	-.023	.047	.962	-.03
		3 Both	-.069	.047	.464	-.08
		4 Non-Involved	.044	.047	.794	.05
	2 Non-Political	1 Political	.023	.047	.962	-.03
		3 Both	-.046	.008	.000	-.05
		4 Non-Involved	.067	.009	.000	.07
	3 Both	1 Political	.069	.047	.464	-.08
		2 Non-Political	.046	.008	.000	-.05
		4 Non-Involved	.113	.011	.000	.12
	4 Non-Involved	1 Political	-.044	.047	.794	.05
		2 Non-Political	-.067	.009	.000	.07
		3 Both	-.113	.011	.000	.12

Table 4.9 *ANOVA Statistics for Collegiate Experiences*

Individual Item	*F*	*df1, df2*	*p*	η^2
Collegiate Student Organization Involvement	11774.72	3, 96238	***	.27
Collegiate Positional Leadership	4097.78	3, 96247	***	.11
Collegiate Leadership Training	1855.37	3, 96232	***	.05

****p*<.001

Table 4.10 *ANOVA Post-Hoc Tests Mean Comparisons for Collegiate Experiences*

Variable	Student Subgroup	Student Subgroup	Mean Difference	SE	Sig.	Effect Size (*d*)
Collegiate student organization involvement	1 Political	2 Non-Political	-1.211	.065	.000	-1.00
		3 Both	-1.837	.065	.000	-1.68
		4 Non-Involved	.770	.065	.000	.85
	2 Non-Political	1 Political	1.211	.065	.000	-1.00
		3 Both	-.626	.011	.000	-.51
		4 Non-Involved	1.981	.012	.000	1.91
	3 Both	1 Political	1.837	.065	.000	-1.68
		2 Non-Political	.626	.011	.000	-.51
		4 Non-Involved	2.607	.015	.000	2.84
	4 Non-Involved	1 Political	-.770	.065	.000	.85
		2 Non-Political	-1.981	.012	.000	1.91
		3 Both	-2.607	.015	.000	2.84
Collegiate Positional Leadership	1 Political	2 Non-Political	-.930	.074	.000	-.84
		3 Both	-1.687	.074	.000	-1.45
		4 Non-Involved	.160	.075	.137	.28
	2 Non-Political	1 Political	.930	.074	.000	-.84
		3 Both	-.756	.012	.000	-.49
		4 Non-Involved	1.091	.014	.000	1.14
	3 Both	1 Political	1.687	.074	.000	-1.45
		2 Non-Political	.756	.012	.000	-.49
		4 Non-Involved	1.847	.017	.000	1.82
	4 Non-Involved	1 Political	-.160	.075	.137	.28
		2 Non-Political	-1.091	.014	.000	1.14
		3 Both	-1.847	.017	.000	1.82
Collegiate Leadership Training	1 Political	2 Non-Political	-.102	.020	.000	-.33
		3 Both	-.301	.020	.000	-.75
		4 Non-Involved	.027	.020	.532	.13
	2 Non-Political	1 Political	.102	.020	.000	-.33
		3 Both	-.198	.003	.000	-.43
		4 Non-Involved	.130	.004	.000	.48
	3 Both	1 Political	.301	.020	.000	-.75
		2 Non-Political	.198	.003	.000	-.43
		4 Non-Involved	.328	.005	.000	.90
	4 Non-Involved	1 Political	-.027	.020	.532	.13
		2 Non-Political	-.130	.004	.000	.48
		3 Both	-.328	.005	.000	.90

Table 4.11 *Descriptive Statistics for Socially Responsible Leadership Scale Posttest by Total Sample and Student Subgroup*

				Student Subgroup							
		Total		Political		Non-Political		Both		Non-Involved	
Variable	Individual Item	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Socially Responsible Leadership Scale Posttest[a]	Omnibus	3.95	0.40	3.96	0.37	3.95	0.38	4.07	0.41	3.83	0.43
	Consciousness of Self	3.97	0.51	4.00	0.51	3.97	0.50	4.06	0.51	3.86	0.55
	Congruence	4.15	0.51	4.22	0.48	4.15	0.50	4.25	0.51	4.05	0.55
	Commitment	4.30	0.48	4.33	0.44	4.31	0.46	4.37	0.50	4.20	0.52
	Collaboration	4.04	0.47	4.01	0.44	4.04	0.45	4.12	0.48	3.92	0.51
	Common Purpose	4.00	0.46	3.98	0.43	4.00	0.44	4.11	0.47	3.85	0.49
	Controversy with Civility	3.81	0.43	3.86	0.42	3.80	0.41	3.89	0.45	3.74	0.44
	Citizenship	3.82	0.58	3.78	0.59	3.81	0.56	4.08	0.57	3.57	0.60
	Change	3.80	0.49	3.80	0.53	3.79	0.48	3.88	0.51	3.73	0.51

Note. [a]Respondents rated their level of agreement on a 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree). Higher scores indicated respondents' greater capacity for socially responsible leadership during college.

Table 4.12 *ANOVA Statistics for Socially Responsible Leadership Scale Posttest*

Individual Item	*F*	*df1, df2*	*p*	η^2
Omnibus	901.50	3, 96253	***	.03

****p*<.001

Table 4.13 *ANOVA Post-Hoc Tests Mean Comparisons for Socially Responsible Leadership Scale Posttest*

Variable	Student Subgroup	Student Subgroup	Mean Difference	SE	Sig.	Effect Size (*d*)
Omnibus	1 Political	2 Non-Political	.014	.020	.907	.04
		3 Both	-.106	.021	.000	-.27
		4 Non-Involved	.134	.021	.000	.33
	2 Non-Political	1 Political	-.014	.020	.907	.04
		3 Both	-.120	.003	.000	-.31
		4 Non-Involved	.120	.004	.000	.30
	3 Both	1 Political	.106	.021	.000	-.27
		2 Non-Political	.120	.003	.000	-.31
		4 Non-Involved	.240	.005	.000	.58
	4 Non-Involved	1 Political	-.134	.021	.000	.33
		2 Non-Political	-.120	.004	.000	.30
		3 Both	-.240	.005	.000	.58

Table 4.14 *MANOVA Statistics for Socially Responsible Leadership Scale Posttest Omnibus Score*

Individual Item	*F*	*df1, df2*	*p*	Pillai's Trace	Partial Eta Squared
Omnibus	288.13	24, 288744	***	.07	.02

****p*<.001

Table 4.15 *MANOVA Statistics for Socially Responsible Leadership Scale Posttest Subscale Scores*

Subscale	*F*	*df1, df2*	*p*	η^2
Consciousness of Self	364.73	3, 96253	***	.01
Congruence	359.78	3, 96253	***	.01
Commitment	276.92	3, 96253	***	.01
Collaboration	470.61	3, 96253	***	.01
Common Purpose	828.90	3, 96253	***	.03
Controversy with Civility	355.34	3, 96253	***	.01
Citizenship	1994.82	3, 96253	***	.06
Change	233.66	3, 96253	***	.01

****p*<.001

Table 4.16 *MANOVA Post-Hoc Tests Mean Comparisons for Socially Responsible Leadership Scale Posttest Subscale Scores*

Subscale	Student Subgroup	Student Subgroup	Mean Difference	SE	Sig.	Effect Size (*d*)
Consciousness of Self	1 Political	2 Non-Political	.035	.027	.559	.07
		3 Both	-.061	.027	.108	-.12
		4 Non-Involved	.140	.027	.000	.27
	2 Non-Political	1 Political	-.035	.027	.559	.07
		3 Both	-.095	.005	.000	-.19
		4 Non-Involved	.105	.005	.000	.20
	3 Both	1 Political	.061	.027	.108	-.12
		2 Non-Political	.095	.005	.000	-.19
		4 Non-Involved	.200	.006	.000	.38
	4 Non-Involved	1 Political	-.140	.027	.000	.27
		2 Non-Political	-.105	.005	.000	.20
		3 Both	-.200	.006	.000	.38
Congruence	1 Political	2 Non-Political	.072	.026	.032	.15
		3 Both	-.026	.027	.770	-.05
		4 Non-Involved	.171	.027	.000	.33
	2 Non-Political	1 Political	-.072	.026	.032	.15
		3 Both	-.098	.004	.000	-.19
		4 Non-Involved	.099	.005	.000	.19
	3 Both	1 Political	.026	.027	.770	-.05
		2 Non-Political	.098	.004	.000	-.19
		4 Non-Involved	.196	.006	.000	.37
	4 Non-Involved	1 Political	-.171	.027	.000	.33
		2 Non-Political	-.099	.005	.000	.19
		3 Both	-.196	.006	.000	.37
Commitment	1 Political	2 Non-Political	.023	.025	.794	.05
		3 Both	-.039	.025	.408	-.08
		4 Non-Involved	.123	.025	.000	.26
	2 Non-Political	1 Political	-.023	.025	.794	.05
		3 Both	-.062	.004	.000	-.13
		4 Non-Involved	.100	.005	.000	.20
	3 Both	1 Political	.039	.025	.408	-.08
		2 Non-Political	.062	.004	.000	-.13
		4 Non-Involved	.162	.006	.000	.32
	4 Non-Involved	1 Political	-.123	.025	.000	.26
		2 Non-Political	-.100	.005	.000	.20
		3 Both	-.162	.006	.000	.32
Collaboration	1 Political	2 Non-Political	-.036	.024	.453	-.08
		3 Both	-.113	.024	.000	-.25
		4 Non-Involved	.092	.024	.001	.20
	2 Non-Political	1 Political	.036	.024	.453	-.08
		3 Both	-.077	.004	.000	-.17
		4 Non-Involved	.128	.004	.000	.27
	3 Both	1 Political	.113	.024	.000	-.25
		2 Non-Political	.077	.004	.000	-.17
		4 Non-Involved	.205	.005	.000	.41
	4 Non-Involved	1 Political	-.092	.024	.001	.20
		2 Non-Political	-.128	.004	.000	.27
		3 Both	-.205	.005	.000	.41

Table 4.16 (*continued)*

Subscale	Student Subgroup	Student Subgroup	Mean Difference	SE	Sig.	Effect Size (*d*)
Common Purpose	1 Political	2 Non-Political	-.027	.023	.653	-.06
		3 Both	-.139	.024	.000	-.31
		4 Non-Involved	.128	.024	.000	.28
	2 Non-Political	1 Political	.027	.023	.653	-.06
		3 Both	-.112	.004	.000	-.25
		4 Non-Involved	.155	.004	.000	.33
	3 Both	1 Political	.139	.024	.000	-.31
		2 Non-Political	.112	.004	.000	-.25
		4 Non-Involved	.267	.005	.000	.56
	4 Non-Involved	1 Political	-.128	.024	.000	.28
		2 Non-Political	-.155	.004	.000	.33
		3 Both	-.267	.005	.000	.56
Controversy with Civility	1 Political	2 Non-Political	.063	.022	.022	.15
		3 Both	-.033	.022	.448	-.08
		4 Non-Involved	.125	.022	.000	.29
	2 Non-Political	1 Political	-.063	.022	.022	.15
		3 Both	-.096	.004	.000	-.22
		4 Non-Involved	.062	.004	.000	.14
	3 Both	1 Political	.033	.022	.448	-.08
		2 Non-Political	.096	.004	.000	-.22
		4 Non-Involved	.158	.005	.000	.36
	4 Non-Involved	1 Political	-.125	.022	.000	.29
		2 Non-Political	-.062	.004	.000	.14
		3 Both	-.158	.005	.000	.36
Citizenship	1 Political	2 Non-Political	-.024	.029	.849	-.04
		3 Both	-.297	.030	.000	-.51
		4 Non-Involved	.215	.030	.000	.36
	2 Non-Political	1 Political	.024	.029	.849	-.04
		3 Both	-.274	.005	.000	-.49
		4 Non-Involved	.239	.005	.000	.41
	3 Both	1 Political	.297	.030	.000	-.51
		2 Non-Political	.274	.005	.000	-.49
		4 Non-Involved	.513	.007	.000	.88
	4 Non-Involved	1 Political	-.215	.030	.000	.36
		2 Non-Political	-.239	.005	.000	.41
		3 Both	-.513	.007	.000	.88
Change	1 Political	2 Non-Political	.012	.026	.969	.02
		3 Both	-.081	.026	.009	-.16
		4 Non-Involved	.067	.026	.047	.13
	2 Non-Political	1 Political	-.012	.026	.969	.02
		3 Both	-.092	.004	.000	-.19
		4 Non-Involved	.056	.005	.000	.11
	3 Both	1 Political	.081	.026	.009	-.16
		2 Non-Political	.092	.004	.000	-.19
		4 Non-Involved	.148	.006	.000	.29
	4 Non-Involved	1 Political	-.067	.026	.047	.13
		2 Non-Political	-.056	.005	.000	.11
		3 Both	-.148	.006	.000	.29

Table 4.17 *Hierarchical Multiple Regression Results*

	Hierarchical Multiple Regression Blocks & Variables	R^2	$R^2\,\Delta$	Overall F	F Δ	df1	df2	B	β	Sig.	t
1	Demographic Characteristics	.022	.022	289.996***	289.996***	7	90357				
	Gender							.059	.071	***	21.573
	African American/Black							.072	.040	***	12.201
	Asian American/Asian							-.107	-.072	***	-21.551
	Latino/Hispanic							.023	.012	***	3.530
	Multiracial							.033	.022	***	6.676
	Other/Not Reported							-.018	-.006		-1.769
	Class Standing							.032	.090	***	27.392
2	Socially Responsible Leadership Before College	.315	.293	5198.162***	38686.219***	1	90356				
	Gender							.037	.044	***	16.024
	African American/Black							.022	.012	***	4.474
	Asian American/Asian							-.100	-.067	***	-23.951
	Latino/Hispanic							-.002	-.001		-.419
	Multiracial							.020	.013	***	4.823
	Other/Not Reported							-.023	-.008		-2.813
	Class Standing							.045	.129	***	46.843
	Socially Responsible Leadership Scale Quasi-Pretest							.432	.545	***	196.688
3	Precollege Experiences (Covariate)	.329	.014	4031.459***	630.522***	3	90353				
	Gender							.027	.032	***	11.688
	African American/Black							.012	.007		2.367
	Asian American/Asian							-.103	-.069	***	-24.984
	Latino/Hispanic							-.004	-.002		-.707
	Multiracial							.017	.011	***	4.066
	Other/Not Reported							-.033	-.011	***	-4.049
	Class Standing							.048	.137	***	50.078
	Socially Responsible Leadership Scale Quasi-Pretest							.395	.498	***	168.656
	Precollege Involvement in Clubs & Service							.038	.065	***	16.598
	Precollege Positional Leadership							.009	.020	***	5.342
	Precollege Leadership Training							.027	.066	***	19.532

Table 4.17 *(continued)*

	Hierarchical Multiple Regression Blocks & Variables	R^2	$R^2\,\Delta$	Overall F	F Δ	df1	df2	B	Beta (β)	Sig.	t
	Involvement Subgroup Membership	.339	.010	3306.969***	436.673***	3	90350				
	Gender							.032	.038	***	13.819
	African American/Black							.020	.011	***	4.093
	Asian American/Asian							-.098	-.065	***	-23.903
	Latino/Hispanic							.003	.002		.633
	Multiracial							.016	.011	***	4.014
	Other/Not Reported							-.030	-.010	***	-3.653
4	*Class Standing*							.045	.129	***	47.327
	Socially Responsible Leadership Scale Quasi-Pretest							.396	.499	***	170.101
	Precollege Involvement in Clubs & Service							.030	.050	***	12.858
	Precollege Positional Leadership							.003	.007		1.957
	Precollege Leadership Training							.027	.066	***	19.593
	Involvement Subgroup – Political							.086	.013	***	4.919
	Involvement Subgroup – Non-Political							.057	.065	***	16.956
	Involvement Subgroup – Both Political/Non-Political							.144	.134	***	34.661
	Collegiate Experiences	.359	.020	2976.372***	948.211***	3	90347				
	Gender							.031	.037	***	13.789
	African American/Black							.019	.010	***	3.865
	Asian American/Asian							-.102	-.068	***	-25.202
	Latino/Hispanic							.006	.003		1.105
	Multiracial							.019	.012	***	4.582
	Other/Not Reported							-.028	-.009	***	-3.421
	Class Standing							.034	.098	***	34.973
5	*Socially Responsible Leadership Scale Quasi-Pretest*							.393	.495	***	170.972
	Precollege Involvement in Clubs & Service							.025	.043	***	11.082
	Precollege Positional Leadership							-.012	-.028	***	-7.238
	Precollege Leadership Training							.025	.059	***	17.928
	Involvement Subgroup – Political							.062	.010	***	3.610
	Involvement Subgroup – Non-Political							-.013	-.015	***	-3.461
	Involvement Subgroup – Both Political/Non-Political							.043	.040	***	9.295
	Collegiate Student Organization Involvement							.030	.109	***	27.684
	Collegiate Positional Leadership							.013	.049	***	13.001
	Collegiate Leadership Training							.053	.052	***	17.324

CHAPTER FIVE

DISCUSSION

This research reinforces the historic and important role of colleges and universities in educating a socially responsible and engaged citizenry, which is at the core of higher education's civic and public mission. Findings suggest that students' involvement in political organizations was an important experience for fostering students' leadership development, as defined by the SCM; however, participating in a varied set of co-curricular involvement experiences had an even larger effect on students' leadership development. Involvement in both political and non-political organizations produced the highest scores in socially responsible leadership. Students not involved in any organization, many of whom were female or of a racial/ethnic minority group, reported the lowest scores in socially responsible leadership. Although precollege experiences and socially responsible leadership capacity before college predicted the most variance (31%) in college leadership outcomes, college experiences, including frequency of co-curricular involvement, frequency of holding positional leadership roles, and frequency of participation in leadership training and education programs, also related positively to students' leadership. While the study revealed these subgroup differences, the effect sizes for many of them were small. Yet, these results have numerous implications for college educators who are sources for direct intervention and influence over students' development (Dugan & Komives, 2007), as well as scholars who examine the role of co-curricular involvement in fostering students' leadership development. This chapter discusses the main findings and their implications in detail, as well as addresses the study's limitations. The chapter concludes with directions for future research as this study

presents additional opportunities to understand the relationship between students' political involvement and socially responsible leadership development.

Restatement of Research Problem, Design, and Methodology

Colleges and universities have long held a central role in shaping the quality of leadership in the United States. College mission statements and catalogs are replete with statements related to the advancement of student leadership development. Students' capacity for socially responsible leadership is considered an essential learning outcome of a college education, and according to the Association of American Colleges and Universities (2007), is necessary for meeting the demands and challenges of the 21st century. A growing body of research explores how different types of co-curricular involvement could influence leadership development and how the leadership process differs among various groups of students. However, participation in student political organizations has been insufficiently studied, although it has the potential for developing college students' capacity for leadership.

This study provided a theoretically grounded understanding of the relationship between students' political involvement and their capacities for socially responsible leadership, including which student characteristics, precollege experiences, and collegiate experiences contribute to these capacities. Political involvement was defined as participation in co-curricular, campus-based student organizations that were political or advocacy in nature as self-reported on the 2009 Multi-Institutional Study of Leadership Student Survey (MSL-SS). Socially responsible leadership was defined as a purposeful, collaborative, group process that ultimately is concerned with fostering social responsibility and positive social change for the common good, measured by students'

self-reported scores on the Socially Responsible Leadership scale – Revised 3 (SRLS-R3) (Dugan & Komives, 2009; Tyree, 1998) on the MSL-SS. The SRLS-R3 measures were based on the social change model of leadership development (SCM) (HERI, 1996), which is one of the most well known student leadership models, in part due to its broad applicability to student populations, recognition of social responsibility as an essential educational outcome, and grounding in theoretical measures of postindustrial notions of leadership (Dugan & Komives, 2007, 2010; Kezar et al., 2006).

The study employed a cross-sectional, quantitative research design based upon secondary analysis of data collected as part of the MSL, a national project examining influences on college student leadership development. A sample of 96,257 college undergraduate students were sorted into four subgroups based on students' self-reported involvement in political organizations, non-political organizations, both political/non-political organizations, and no student organizations (i.e., non-involved). Statistical analyses including analysis of variance and multivariate analysis of variance were employed to compare differences across the four student subgroups in students' self-reported demographic characteristics, precollege experiences, socially responsible leadership capacity prior to college, and collegiate experiences. Using an adapted version of A. W. Astin's (1991) I-E-O college impact model, data were analyzed further through hierarchical multiple regression to identify the degree to which these variables contributed to leadership outcomes.

Discussion of Findings

Co-Curricular Involvement and Other Collegiate Experiences Foster Students' Leadership Development

The present research indicated a positive relationship between co-curricular student involvement (as represented by the involvement subgroup membership and other collegiate experiences variables) and leadership development. The largest significant difference in leadership outcome scores was observed between the both political/non-political subgroup and the non-involved subgroup. Even after collegiate experiences (e.g., frequency of involvement in on-campus student organizations during college, frequency of positional leadership during college, and frequency of leadership training and education during college) entered the regression equation, involvement in political organizations and both political/non-political organizations significantly and positively predicted students' leadership development.

Results also showed leadership scores were not significantly different between the political and non-political subgroups. This speaks to the potential contribution of participation in either type of organizational involvement to the development of students' socially responsible leadership. However, the both political/non-political subgroup scored the highest consistently across most variables measuring precollege experiences, collegiate experiences, and leadership (as measured by the omnibus SRLS-R3 scores). On the pre-SRLS quasi-pretest and five of the eight post-SRLS subscales (consciousness of self, congruence, commitment, controversy with civility, and change), scores for the both political/non-political subgroup did not significantly differ from those of the political subgroup. This suggests that involvement in political organizations as well as at

least one other type of non-political organization is related to greater socially responsible leadership development. It is possible that students involved in both political/non-political organizations had greater opportunities to interact with peers, exposure to new and different points of view, and engagement in the leadership process. Chowdhry (2010) also found that students involved in multiple organization types may have more opportunities to engage in social change behaviors. Although most effect sizes for these subgroup differences were small, these findings support a substantial body of theory and research (A. W. Astin, 1993; Cress et al., 2001; Komives et al., 2009; Pascarella & Terenzini, 2005) that demonstrates campus involvement leads to student development and other educational outcomes, including the development of leadership skills and activities. Involvement in student organizations as a significant experience in students' leadership development is consistent across many studies (Arminio et al., 2000; A. W. Astin, 1993; Chowdhry, 2010; Dugan, 2006a, 2006b; Gerhardt, 2008; Harper & Quaye, 2007; Kezar & Moriarty, 2000; Kuh, 1995; Rosch, 2007; Shalka, 2008; Sutton & Terrell, 2007), due in part because student organizations facilitate peer interactions (Newcomb, 1962) and socialization (Weidman, 1989). These aspects of student organization involvement can be very powerful in fostering students' development (A. W. Astin, 1993; Pascarella & Terenzini, 2005).

The non-involved students scored the lowest on the leadership outcome scores (including all eight leadership subscales), although the effect sizes of the subgroup differences were mostly small. Yet, it was surprising that non-involved students still reported levels of socially responsible leadership capacity near the other subgroups. One explanation of this finding is that non-involved students gained in leadership

development due to influences in settings other than student organizations. Zimmerman-Oster and Burkhardt (1999) found that students who attend colleges and universities with formal leadership development programs, but did not actually participate in them, reported higher outcomes when compared to peers at campuses without formal programs. Dugan et al. (2008) explain, "This 'halo effect' suggested that the presence of a formalized program contributed to outcomes for students that did not even participate through the creation of a cultural milieu that fostered conversation on the subject" (p. 478). Another possible explanation is that non-involved students are gaining socially responsible leadership skills from other collegiate experiences not examined in this study. Positive predictive relationships have been established in the research literature between leadership capacity and experiences such as internships (Cress et al., 2001; Kezar & Moriarty, 2000); faculty interactions and mentoring (A. W. Astin, 1993; Dugan & Komives, 2007); community service and volunteerism (A. W. Astin & Sax, 1998; A. W. Astin et al., 2000, 2006; Cress et al., 2001; Dugan, 2006b; Dugan & Komives, 2007; Kezar & Moriarty, 2000; Rosch, 2007); class group projects (Cress et al., 2001); and discussions about socio-cultural issues (Dugan & Komives, 2007; Kezar & Moriarty, 2000). The degree to which these collegiate experiences predict socially responsible leadership development for non-involved students as compared to politically involved students should be explored further in future research.

Positional leadership emerged as a significant predictor of socially responsible leadership development. This is consistent with the literature that indicates holding an elected office or any positional leadership role in a student organization positively contributes to leadership development (Astin, 1993; Dugan, 2006a; Haber & Komives,

2009; Kezar & Moriarty, 2000). This finding could reflect that experiential opportunities, such as engaging in a leadership role, can help students learn more about themselves as leaders, which relates to the individual values of the SCM. The experience of holding a formal leadership role could have provided students more awareness of the concept of leadership as well as experience in engaging in leadership, thus helping students to develop leadership outcomes.

Collegiate leadership training and education also was positively related to the leadership outcome measure, which is consistent with past research documenting numerous positive outcomes associated with participation in leadership training programs (Cress et al., 2001; Dugan & Komives, 2007; Kezar & Moriarty, 2000; Zimmerman-Oster & Burkhardt, 1999). However, it is inconsistent with findings in the Haber and Komives (2009) study (based on 2006 MSL data) which found that short, moderate, and long-term leadership training and education experiences were not significant experiences for students' leadership outcomes, specifically for the SCM values of consciousness of self, congruence, and commitment. These were the only leadership outcomes they measured. They explained that the low frequency of participation in the training experiences by the participants in their study and low variation among participants' scores may have "prevented other significant findings from emerging" (p. 157). This was surprising given that in both studies, there were low means and low variation in the leadership training scores, indicating that many respondents had little to no experience with leadership training or educational programs. Yet, this study found leadership training to be a significant predictor of leadership outcomes. Haber and Komives (2009) also suggested that leadership training and educational programs in which students did

participate may not have emphasized these particular values of socially responsible leadership. Perhaps if those programs were more intentional about fostering leadership development under the SCM, the variable would have been a stronger predictor of socially responsible leadership development (2009). Or, perhaps if the leadership training and education variable in the present study was disaggregated by duration of contact (e.g., short-term, moderate-term, and long-term), results would be different. Research that specified the duration of leadership programs found significant differences in students' capacity for socially responsible leadership (Dugan & Komives, 2007; Rosch & Caza, 2012; Zimmerman-Oster & Burkhardt, 1999).

Co-Curricular Involvement Varies by Students' Demographic Characteristics

The first research question aimed to present a portrait of politically involved students as compared to students involved in non-political organizations, both political/non-political organizations, and no organizations (i.e., non-involved). Results revealed differences in involvement related to students' demographics characteristics. The largest difference was observed in the non-involved subgroup, which had the largest proportion of female students and students of color (i.e., of non-White/Caucasian background). Previous studies (Evans, Forney, & Guido-DiBrito, 1998; Kuh, 1993, 1995, 2007; Pascarella & Terenzini, 2005) have documented the beneficial effects of involvement in student organizations and other co-curricular activities on retention, identity development, and other outcomes produced in college. These specific groups of students have been shown to have unique needs that make them the most susceptible to attrition, low graduation rates, and other negative educational and psychosocial outcomes (Evans et al., 1998; Pascarella & Terenzini, 2005). Findings from the present study

support this research by indicating differences in students' involvement and demographic characteristics.

Notably, the political subgroup had the lowest proportion of students of color among the three involved subgroups, despite the fact that previous research indicates that many students of color seek student organization involvement and leadership opportunities as means to advocate and pursue social justice (Arminio et al., 2000; Harper & Quaye, 2007; Sutton & Terrell, 2007). It is possible that involvement in political organizations by students of color was inhibited by their perceptions of unwelcomeness or as having less leadership opportunities available to them within political organizations, although students' attitudes were not examined within this study. Research shows that of students between the ages 15 and 25, African Americans and Asian Americans are engaged in political activities more than other racial/ethnic groups, including White/Caucasian students (Lopez et al., 2006). For many, experiences with social disadvantage compel them to get involved in student organizations as a vehicle for advocacy of racial/ethnic minority student concerns (Harper & Quaye, 2007). With a sense of activism and responsibility to their community, they may choose to engage in social change behaviors as a way to address inequities in society and on campus.

This seems to suggest a disconnect between students' of color sense of collective action and activism and involvement in political organizations. It is possible that students of color do not view political organizations as supportive of their goals and aspirations and seek to engage in political and advocacy efforts through other types of organizations such as fraternities and sororities, service organizations, and minority/identity-based organizations. Studies (Harper & Quaye, 2007; Sutton & Terrell, 1997) show that many

African American students seek to develop their leadership experiences in these types of student organizations. Perhaps political organizations are dominated by the interests of the majority White/Caucasian students, serving less the needs of students who come from historically marginalized or disadvantaged backgrounds.

Although the present research did not examine the leadership practices within any of the student organizations or students' attitudes about them, it is also possible that the underrepresentation of students of color in political organizations may be due to a perception that political organizations practice more industrial notions of leadership, focusing on the singular leader instead of collectivism. If indeed structures within political organizations emphasize hierarchy and power, political organizations may promote a feeling of marginalization from leadership and leadership roles for students of color, particularly for African American and Asian American/Asian students whose values traditionally emphasize group and community over individual. Future research should examine these possibilities.

Students' Demographic Characteristics Relate to Leadership Development

Evidence from the data suggests differences in students' leadership development related to students' demographic characteristics. Results show that male students, Asian American/Asian students, and non-senior students are not achieving socially responsible leadership development at the same levels as the other students. These results suggest there are differences in the ways students conceptualize, perceive, and practice leadership.

Gender. Results indicated a relationship between gender and socially responsible leadership development. Gender significantly predicted students' socially responsible

leadership development when all other variables were controlled for. Females scored significantly higher than male students on the leadership outcome measures (both quasi-pretest and posttest SRLS measures), supporting past research suggesting gender differences in leadership (Boatwright & Egidio, 2003; Eagly et al., 2003; Romano, 1996). This finding also is consistent with findings from other studies that analyzed 2006 MSL data (Dugan, 2006a, 2008a; Haber, 2006; Page, 2010; Rosch, 2007), but it contradicted findings from Kezar & Moriarty (2000) suggesting men had higher self-reported scores on leadership ability than women. However, the ways in which leadership are measured and conceptualized in the Kezar and Moriarty study and the current study differ. Although both studies assessed leadership, they did not measure the same outcomes. Leadership was informed in the Kezar & Moriarty study by industrial conceptions of leadership, emphasizing hierarchy and individual leaders.

Racial/ethnic background. Racial/ethnic background emerged as a significant predictor of students' socially responsible leadership development. Specifically, the African American/Black and Multiracial groups had the highest gains on socially responsible leadership development compared to the White/Caucasian group. They also had higher quasi-pretest SRLS scores than the White/Caucasian group, before and after controlling for precollege involvement. These findings support previous MSL research that indicated higher scores on socially responsible leadership development for African American students (Dugan & Komives, 2007; Dugan et al., 2008). The present study conceptualized leadership as relational in nature, which could reflect leadership values of traditionally underrepresented groups such as students of color and women (Arminio et

al., 2000; H .S. Astin & Leland, 1991; Dugan & Komives, 2007; Dugan et al., 2008; Eagly et al., 2003; Komives et al., 2009; Romano, 1996).

Research shows that culture and social identity have the potential to influence one's understanding of and approach to leadership (Dugan et al., 2008; Northouse, 2007). Higher leadership development scores by African American and Multiracial students may be explained by a tendency among students of color to prefer a group-based rather than - individual approach to leadership (Arminio et al., 2000; Balón, 2005; Harper & Quaye, 2007; Sutton & Terrell, 1997). Studies (Arminio et al., 2000; Balón, 2005; Harper & Quaye, 2007; Kezar & Moriarty, 2000) suggest that students of color often are attracted to leadership models that are more non-hierarchical, relational, and collaborative in which less-structured styles of positional leadership are practiced. Lower leadership outcome scores by White/Caucasian students could be explained by a cultural orientation that emphasizes more individualistic leadership values, thus conflicting with the SCM that reflects a more relational and less autocratic approach, especially since four of the eight subscales are group- and community-oriented.

Asian American/Asian students scored significantly lower than White/Caucasian students on the leadership outcome measure. They also had lower quasi-pretest SRLS scores than the White/Caucasian group, before and after controlling for precollege involvement. In fact, Asian American/Asian identification was a significant negative predictor of socially responsible leadership development, reaffirming findings from other MSL studies (Dugan & Komives, 2007, 2010; Haber, 2006; Page, 2010). Several reasons could explain this finding. One, previous research has shown that Asian American/Asian students are less likely to identify themselves or members of their racial/ethnic group as

leaders (Balón, 2005). Two, students may have perceived the items on the MSL-SS as an assessment of leadership based on individualistic notions (Haber, 2006; Rosch, 2007), which may have contrasted with traditional Asian American values emphasizing group and community over individual (Balón, 2005). Rosch (2007) points out that students who do not identify with leadership in a Westernized cultural context may be disadvantaged within the context of socially responsible leadership as defined by the SCM. High scores are associated with the willingness to confront others openly and in a civil manner, to disagree with others when standing up for one's individual values, and the belief that the work of the "common good" is always beneficial. While some of the values of the SCM such as community and collaboration are congruent with traditional Asian values (Balón, 2005), these other values may not be and may actually marginalize those from different cultural backgrounds (Rosch, 2007). Because not all SCM values may be equally congruent with one's background and certain values may be more salient than others for different students, this could also explain why African American students had higher leadership outcome scores in spite of also having a group-based approach to leadership. It is important to emphasize that the low leadership outcome scores for Asian American/Asian students should not necessarily be interpreted as deficiencies in socially responsible leadership development. Wang, Hempton, Dugan and Komives (2008) noted that their low scores on the 2006 MSL were not necessarily evidence of weak leadership capacities, but reflected differences in response preferences. Compared to White, African American/Black, and Latino students, Asian American/Asian students, especially foreign-born Asian students, are more likely to select neutral options in Likert-scales and avoid extreme responses, due to cultural differences such as an "aversion to the spotlight"

(Hoy as cited in Wang et al., 2008, ¶ 4) or an avoidance of expressing individual opinions as perceived as the extreme responses. Certainly, more research is needed to examine these possibilities.

Academic class standing. Academic class standing also was a significant positive predictor of students' leadership outcome scores. Each year of class standing added to students' scores. This finding is congruent with the principles of the SCM, which supports co-curricular involvement throughout the duration of college as a way to foster leadership development (HERI, 1996). The more instances students have to participate in co-curricular experiences over time on campus, the more opportunities they have to gain leadership skills. Seniors would have been in college longer than first-year students, and they would have had the opportunity to be involved in more organizations and leadership trainings and programs than first-year students. However, it also is possible that students' other experiences in college such as those curricular in nature as well as maturation had effects. Research (Pascarella & Terenzini, 2005) shows that students' development throughout the undergraduate years is positively related with simple maturation.

Precollege Experiences Relate to Students' Leadership Development in College

This research points to the influence of precollege experiences on college student leadership development. What students came to college with largely explained how they scored on the SRLS-R3 posttest. Students' precollege leadership capacity emerged as the largest factor in predicting leadership. Students' scores on the socially responsible leadership scale quasi-pretest (pre-SRLS) explained the most variance in students' socially responsible leadership scores (29%) relative to all other variables examined in

this study, indicating that the best predictor of socially responsible leadership during college is students' precollege measures of the social change values. This reflects similar findings in other studies (Arminio et al., 2000; Dugan et al., 2008; Dugan & Komives, 2007, 2010; Kezar & Moriarty, 2000; Page, 2010; Smart et al., 2002). Dugan and Komives (2007) explain, "Eighteen or more years of experience provided a strong foundational grounding on which college experiences built" (p. 13). It is possible, too, that the large amount of variance explained is due to the nature of the leadership quasi-pretest and posttest and the study's then/post research design. The tests did not measure students' actual development, but instead assessed their self-reported perceptions of leadership development, retrospectively. This could have led to a bias in the results, although self-reported, retrospective data are widely accepted in the student development literature (Gonyea, 2005; Pike, 1999; Rohs, 2002; Rohs & Langone, 1997; Rosch & Schwartz, 2009; Turrentine, 2001). Although this finding can be expected since it relates directly to the SRLS-R3 outcome measure, it does have important implications for higher education administrators and faculty.

Cumulatively, the input measures representing the pre-SRLS and precollege experiences accounted for 31% of the variance in socially responsible leadership development scores (out of 36% explained by the entire equation). Among the three other precollege experience variables (precollege involvement in clubs and service, precollege positional leadership, and precollege leadership training), the precollege positional leadership variable was the only negative predictor of the leadership outcome measure after collegiate experiences entered the regression equation. This suggests that unless students are engaged in collegiate experiences (i.e., involved in college student

organizations, hold collegiate leadership positions, and participate in collegiate leadership programs), more than they were before college, then the effects of precollege positional leadership are negative. In other words, doing little in college may actually lead to negative growth. This finding could also suggest the possibility that the positional roles students held before college did not emphasize socially responsible leadership. Perhaps the positional roles in secondary school organizations schools reflected more traditional conceptions of leadership and, as such, were more transactional in nature, focusing on processes and the management of groups rather than socially responsible leadership for social change. The dissonance caused by postindustrial notions of leadership in college (Komives, Longerbeam, Owen, Mainella, & Osteen, 2006) could explain why positional leadership prior to college became a negative predictor after collegiate experiences entered the equation.

Limitations of the Research

Common to any research, there are inherent limitations to this study. This section outlines several limitations related to the study's sample, design, and analytic procedures. First, the present study is limited in its generalizability due to overrepresentation of full-time, traditional-aged students (i.e., between the ages 18-23) attending four-year institutions. While results from the study should be understood as generalizable only to the population from which the data were sampled, the sample was a diverse, national cross-section of students and institutions. Additionally, the generalizability is limited by the collapsing and recoding of the racial/ethnic background and gender variables. Although this practice is typical in higher education studies, it perpetuates an underrepresentation and marginalization of students who identify as transgender or

American Indian/Alaskan Native within the research literature, contributing to a lack of understanding about their unique and respective needs.

There are two limitations related to the cross-sectional nature of the design and the study's reliance on self-reported data. First, cross-sectional research designs are limited by capturing self-reported "snapshots" of development rather than "a fundamental developmental perspective" (Dugan & Komives, 2010, p. 533). While development presumes a dynamic process occurring over time (Evans et al., 1998; Pascarella & Terenzini, 2005), a quantitative measurement of development as was done in this study represents a static moment in time. Further, this study is limited in that it does not explain any long-term effects or outcomes beyond the college years. Second, there is an inherent limitation with respect to students' ability to evaluate their own leadership development and retrospectively report on previous experiences they had during or prior to college. Self-reported data, while widely used and accepted, may be biased by a "halo effect" (Pike, 1999, p. 81), social desirability, or response-shift, which could obscure the relationship between college experiences and educational outcomes. These are especially prevalent in leadership studies (Gonyea, 2005; Pike, 1999; Rohs, 2002; Rohs & Langone, 1997; Rosch & Schwartz, 2009; Turrentine, 2001). However, the effects of these biases could be minimized by the use of then/post research designs (Dugan & Komives, 2007, 2010; Rohs, 2002; Rohs & Langone, 1997; Rosch & Schwartz, 2009), rigorous methodological standards including clear and concise survey questions and response options (Pike, 1999; Gonyea, 2005), and utilization of the Marlowe-Crowne Social Desirability scale (Crowne & Marlowe, 1960). Because these procedures were undertaken when the MSL-SS was devised, students' self-reported data are viewed in the

present study as appropriate. Further, Turrentine (2001) found the self-reported data is accurate in measuring students' leadership development, but bias from students' self-reports, if any, may be more likely in the direction of underrating as opposed to overreporting positive behaviors.

Lastly, there are limitations to the research's analytic procedures. Results from this study relate to differences in students' demographic characteristics, precollege experiences, collegiate experiences, and leadership outcomes and reflect the association between these variables, not causality. Consequently, results from this research do not account for the degree to which the relationships would persist in the presence of other variables. Other potentially causal variables either would have to explain more of the variance in the outcome measure or be ruled out if causation were to be determined. Therefore, assertions of a causal relationship between political involvement and leadership development cannot be made from this study, although observance of associations can.

While the regression equation explained 36% of the variance in leadership outcome scores, it is possible other collegiate experiences not included in the study could have explained more of this variance. Research shows that students' leadership outcomes can be related positively to students' community service involvement, internships, discussions about socio-cultural issues, and faculty interactions and mentoring (A. W. Astin, 1993; A. W. Astin & Sax, 1998; A. W. Astin et al., 2000, 2006; Cress et al., 2001; Dugan, 2006b; Dugan & Komives, 2007; Kezar & Moriarty, 2000; Rosch, 2007). While it may have been beneficial to refine a model by adding additional different variables that did not highly correlate with the ones included in this study, using too many variables in

the hierarchical multiple regression likely could have reduced the predictive power of the independent variables. This would have made it unlikely that they would contribute meaningfully to the prediction of the dependent variable (Kinnear & Gray, 2008; Leech et al., 2005; Pallant, 2007).

Additionally, there may have been other variables related to students' political involvement or students' leadership outcome scores that went unexamined in this study such as institutional factors (e.g., campus size, setting, selectivity, control, affiliation, or Carnegie classification) or socioeconomic status (SES). Still, the literature reveals little empirical and theoretical support for the inclusion of these variables as controls (Arnold & Welch, 2007; A. W. Astin & Sax, 1998; Dugan & Komives, 2010; Owen, 2008; Page, 2010; Pascarella & Terenzini, 2005). Institutional variables have not emerged as significant predictors of student development in previous research (A. W. Astin & Sax, 1998; Pascarella & Terenzini, 2005), including MSL studies (Dugan & Komives, 2010; Owen, 2008; Page, 2010) which found little to no effects on socially responsible leadership outcomes. Regarding SES, the decision was made not to control for them in the interest of using the largest sample possible for this study. More than 26,000 students (27%) did not report family income on the MSL-SS, which was substantially more than any other demographic variable.

Another limitation of this study entailed operationalizing the involvement subgroups based solely on participation in student organizations (i.e., involved, not involved) with no quantification of the amount of time spent participating in the organizations. This is a consequence of utilizing a preexisting dataset in which items and response options could not be manipulated for post facto research. On the MSL-SS,

students' frequency of student organization involvement was not differentiated among types of organizations. Students' involvement was treated as equal, assigning the same value to one-time political involvement experiences and in-depth, extended experiences the same way.

Despite these limitations, the study remains useful for numerous reasons. One, it provides valuable information about the leadership development of students who are involved in political organizations compared to those involved in non-political organizations, both political/non-political organizations, and no organizations. It reveals students' demographic characteristics are related to students' involvement and leadership development. Furthermore, by specifically examining the leadership development of college students based on the SCM (HERI, 1996), the leadership outcomes measured in this study reflect contemporary, postindustrial notions of leadership that are regarded as necessary for meeting the challenges of the 21st century. Additionally, this research overcomes the limitations of past leadership studies that examined leadership-related skills, relied on non-theoretical conceptualizations of leadership or those inconsistent with contemporary notions of leadership, and blurred definitional lines between political engagement, civic engagement, and activism.

Implications for Educational Practice

Results of this research provide valuable insight for higher education practitioners. Based on these results, informed by the present research, and grounded in the extant literature, the following are suggestions for college administrators and leadership professionals that could be utilized in their efforts at fostering students' political involvement and socially responsible leadership development.

The present research demonstrated that precollege experiences as well as collegiate experiences including co-curricular involvement in student organizations, positional leadership roles, and leadership training and education related to students' socially responsible leadership development. Involvement in political organizations was an important educational experience for fostering leadership development, but students gained the most when involved in both political and non-political organizations. When considering the other benefits of political involvement, this type of involvement should certainly be promoted. It is impossible to know from this study, however, if participating in a political or advocacy type of organization, was more beneficial than the other. Additionally, college educators should consider promoting formal leadership roles (while still promoting involvement of all members in the leadership process) and leadership training and education programs as ways to foster socially responsible leadership development. Purposefully designing activities in student organizations as well as the components of leadership training programs with the experiences that influence socially responsible leadership could provide greater impact on leadership development for the students involved.

While the non-involved subgroup did not achieve the same leadership development as the other involved students, results revealed that they are still developing skills, suggesting either a halo effect, maturation, or other sources in the collegiate environment contribute to their leadership development. College educators ought to be aware of the opportunities inside and outside the classroom that can benefit students' leadership outcomes and incorporate discussions of leadership development and involvement when in direct contact with students in traditional settings such as those

within student affairs, but also those within academic affairs such as academic advising settings, study abroad, or internships. Despite the possibility that non-involved students may have benefited from a halo effect, all subgroups of students in this study engaged in leadership training and education programs in low frequency. College educators should work with students organization leaders to be more intentional about fostering leadership development by encouraging them to recognize leadership as a process for all members and engaging everyone in more activities, trainings, and educational programs that emphasize the values and behaviors of socially responsible leadership.

Leadership development and co-curricular involvement varied by students' demographic characteristics. Information on these differences among students could enable practitioners to design programs that meet the varying developmental needs of different groups of students (Kezar & Moriarty, 2000). Deliberate efforts should be made to assist these students who are more likely to be not involved in their development as leaders. Practitioners should also consider students from all racial/ ethnic backgrounds and identify how leadership development might be different among group members. Practitioners ought to invest resources in introducing these students to student organizations in which they can participate in the leadership process and develop the skills, behaviors, and values that will enable them to become socially responsible leaders after college. For instance, programmatic initiatives and activities that address the values of the SCM could provide them with opportunities to engage in leadership that may be more congruent with their values, help connect them with others, and get more involved in organizations. Harper and Quaye (2007) suggest that student organization involvement be communicated to students of color as opportunities for learning more about

themselves and others as well as opportunities for participating in programmatic and advocacy efforts that will improve their own quality of life as well as that of other marginalized students on campus, which are congruent with the SCM. While encouraging participation by students of color in political organizations, caution should be made to increase representation as a whole while not making their racial/ethnic background the focus of why they are given opportunities.

Although students of color tend to be attracted to non-hierarchical and relational forms of leadership and aspire to pursue social change (Arminio et al., 2000; Balón, 2005; Harper & Quaye, 2007; Sutton & Terrell, 1997), students of color were underrepresented in political organizations. College educators should work with politically involved students to promote the values and behaviors consistent with the SCM. Not only could this foster more socially responsible leadership development of students involved, but it could also be used as a way to get more students of color involved if these organizations' leadership practices were more congruent with their values, which are more consistent with SCM. Additionally, practitioners ought to examine the composition and purposes of existing political organizations on campus. They should be aware of who is involved in the organizations and possibly encourage the broadening of membership to include more students of color, especially since political organization involvement may contribute to positive gains in socially responsible leadership development. Perhaps they would attract more students of color if they practiced "institutional collectivism" (House as cited in Northouse, 2007, p. 306), defined as the degree to which an organization encourages collective action, and is concerned with broader societal interests rather than individual goals and accomplishments. While

some political organizations may profess to meet the needs of students (Christiansen, 2007; Francis, 2004), organization members ought to be cognizant of whose needs they actually are serving. Are they advocating for support and resources to meet the needs of all students, including racial/ethnic minority students, or just those of the predominant majority group? Are all voices heard and considered? Whose needs and issues are represented?

This study indicates the importance of precollege engagement on students' leadership development. Students' scores on the socially responsible leadership scale quasi-pretest explained the most variance in students' socially responsible leadership relative to all other variables examined in this study. This finding reinforces the need for more collaboration among higher education and secondary education institutions, which has been suggested in the literature (Jacoby, 2006; Kezar & Lester, 2009). College educators should stop viewing institutions as silos, but rather recognize secondary schools as part of an educational pipeline. Because student involvement positively relates to "virtually all aspects of the student's educational and personal development" (A. W. Astin, 1999, p. 590), pipeline issues should include issues of student development in addition to college access, persistence, and completion. For example, higher education institutions could have open dialogue with secondary school students and address the importance of co-curricular involvement (Jacoby, 2006). Additionally, colleges and universities could encourage more leadership opportunities and political involvement activities for the students who were not involved in them prior to coming to college, so that they, too, can reap the leadership developmental benefits of political involvement.

Another important implication is the way in which political involvement is defined in the literature and subsequently promoted in practice. This research supports the need to consider political involvement separate from other forms of involvement. Political organizations do not necessarily share the same aims, goals, or activities as other types of organizations. Even though the goals of community service and other volunteering in the community can sometimes coincide with political organizations, they have distinguishing qualities separate from each other (Chowdhry, 2010; Colby et al., 2003; 2007; Komives et al., 2009; Page, 2010; Verba & Nie, 1972; Zukin et al., 2006). The National Task Force on Civic Learning and Democratic Engagement (2012) emphasizes that community service alone does not necessarily foster social responsibility in the same ways as political involvement. Although this research did not compare students' involvement in political organizations to these other types of involvement, the findings support the view that political involvement is important for addressing social change, suggesting political organizations can be platforms for fostering socially responsible leadership development.

Directions for Future Research

While the present study addressed the relationship between students' political involvement and leadership development, it leaves open important questions that ought to be examined in future research. Many of these suggestions for future research derive from the findings as well as the study's limitations concerning its sample, design, and analytic procedures. Thus, future work could improve upon these limits in methodology and results as next explained.

First, this study examined the influence of students' political involvement within one particular student population – undergraduate students matriculated in spring 2009. This analysis of cross-sectional data, although national in scope and large in sample size, is limited to explanation as only a snapshot of students' political involvement. Conducting a longitudinal study of students' political involvement and leadership development may reveal additional knowledge this study could not produce. For example, it is unknown from this study if duration of involvement over time plays a role in students' leadership development, or whether students would reap the same benefits if they were involved in organizations for one semester versus more long-term involvement. Additionally, although class standing did have a significant effect on leadership development, it also is unclear whether students would gain more benefits by participating in these organizations beginning as a first-year student or waiting until they have had more collegiate experience as a sophomore or older. Future studies conducted longitudinally may reveal information about these potential differences. Further, it is unknown whether the change that was observed in this study will last beyond the college years, as this study looked at only the short-term effects of involvement on leadership development. Knowledge of such long-term change would be beneficial to anyone concerned with student development since the overarching goals of higher education are to produce long-term changes (A. W. Astin, 1991) and more specifically, to prepare students for socially responsible leadership and engaged citizenship after college.

Additionally, it would be worth replicating this study with a larger sample of 2-year institutions. The sample in the present study consisted of 99% 4-year institutions and only 1% 2-year institutions. This underrepresentation of 2-year institutions suggests that

the findings from this study are not applicable to these types of institutions. Yet, 44% of all undergraduates nationwide–including 43% of first-time undergraduates and 50% of African American, Latino, and Native American students–enroll in these types of colleges (American Association of Community Colleges, 2011). Moreover, the National Task Force on Civic Learning and Democratic Engagement (2012) recommends that 2-year institutions strengthen their efforts at fostering leadership development and political involvement of its students. The future of democracy depends on their participation: "Since the majority of these students do not transfer beyond the community college, it is all the more important that civic learning be integrated into the curriculum, including career training programs" (p. 10).

While findings in this study indicate a positive relationship between students' political involvement and socially responsible leadership development, additional research should be conducted to understand this relationship further. Since the amount of variance explained by the independent variables was small, more research is needed t o examine other contributing factors that may be associated with political involvement but were not examined in this study because they were not a part of the MSL data or not considered primary predictors. These variables might include parental educational attainment or parental income (i.e., socioeconomic status), academic major, political views, duration of political involvement, or location of political involvement. It also should be explored whether the unexplained variance can be explained by other environmental variables that research (e.g., Cress et al. 2001) has shown to be related to students' leadership development, such as how socially involved students are with their peers, the closeness of their relationships with faculty, and the amount of time students

physically spend on campus. Other variables could include mentoring, role modeling, service, internships, or study abroad, which have been shown in other MSL studies to contribute significantly to leadership development (Dugan & Komives, 2007, 2010; Haber, 2006). Therefore, future research should explore these variables for the possible relationship they may have with politically involved students' leadership development.

Future studies should disaggregate the data by student demographic variables and examine the interactions between these variables and the student involvement subgroups. Although student demographic characteristics (e.g., gender, racial/ethnic background, and class standing) were identified as significant predictors of students' leadership development in this study, more research is needed to help better understand these different groups of students and the variables significant to their leadership development. Future research also should disaggregate leadership outcomes by demographic variables since findings from this study indicated connections between these variables. Additionally, past research shows that type of involvement has differential influences on development based on student background (Kezar and Moriarty, 2000; Rosch, 2007). Notably, results of this study showed African American, Asian American/Asian, and Latino/Hispanic had different leadership outcomes. In recent years, a growing number of studies have been conducted on African American and Asian American/Asian students, recognizing their unique needs and outcomes. Findings from this study support this need for more research that focuses on these students (Balón, 2005; Green & Kim, 2005; Lin, 2007; Ong, 2008).

Another suggested area of research is on different types of on-campus, political organizations. While this study was able to assess the contribution of the types of

organizations defined as political or activist in nature, there is little information known about other types of organizations that arguably could be considered "political" (e.g., service, student government, or identity-based organizations). Because past research (Colby et al., 2003; Jacoby & Associates, 2009; Zukin et al., 2006) is unclear about what precisely constitutes political involvement from other types of involvement such as service or volunteering, conceiving political involvement in the way it was done in this study was guided by the notion, "The content of the student group matters" (Zukin et al., 2006, p. 145). Future research should explore whether results from this study are consistent if "political" organizations were defined differently, especially as research has shown political and advocacy as well as service, student government, and identity-based organizations to be actively engaged in political issues (Bardou, Byrne, Pasternak, Perez, and Rainey, 2003; Chowdhry, 2010; Harper & Quaye, 2007; Page, 2010; Rhoads, 1997, 1998a, 1998b, 1998c; Renn & Bilodeau, 2005). Should the research be conducted with the same dataset utilized in this study, the sample size of the political subgroup would grow from 370 to 2,100 students if all five organization types were included. However, caution would need to be made in the interpretation of results. It would be important to discern from the research precisely which outcomes result from political involvement or which ones are shared, since definitional boundaries blur among all of these organizations and not all activities of these organizations involve politics.

As the scope of this study only included on-campus involvement experiences, it is the possible that the inclusion of off-campus, political organizations could explain a higher percentage of the outcome's variance. Thousands of students across the country participate in these types of organizations, whether they are based within the local

community, on a state level, or on a national level (Casey, 2008; Christiansen, 2007; Francis, 2004; Friel, 2006; Lipka, 2008; Moore & Johnston, 2002). Political involvement could also be facilitated by and affiliated with academic departments, but take place in settings outside of the campus such as internships in state capitals or Washington, DC. Because these organizations have the potential for being important vehicles for fostering leadership development, they could contribute to model variance in future research efforts.

Also related to the issue of the operationalization of political involvement is students' frequency of involvement, that is, the amount of time students spent participating in the organizations. Because the leadership instrument used in this study did not measure the frequency of students' participation in each organization and only included a measure of total involvement, it could not be determined whether time was a factor for certain organization types more than others. From a theoretical perspective, it would more accurate if political involvement was operationalized with both participation and frequency variables. From a statistical point of view, measuring involvement based solely on dichotomous variables limits the descriptive nature of the construct. Improving the operationalization of political involvement with continuous variables measuring the frequency of involvement along with participation variables could expand the numerous statistical techniques available for analyzing leadership outcomes. Additionally, this research revealed that students' involvement in both political and non-political organizations was related to greater gains in leadership development than political involvement alone. However, it is unknown from this study whether gains were related to

involvement in a diverse set of organizations or simply more (i.e., quantity) organizations in which students get involved. Future research should examine these possibilities.

Studying student development with A. W. Astin's (1993) I-E-O conceptual framework provides educators, students, and policy makers with data-driven, theoretically-informed information for knowing how to achieve desired educational outcomes. One limitation, however, to this approach is that it does not describe much nuance about students' political involvement in relation to their leadership development outcomes that that perhaps research based on a qualitative methodology could provide. The nature of survey research limits researchers' ability to understand the nature of experiences and explain why students do what they do (Astin et al., 2006). Therefore, it is suggested that qualitative studies be conducted for they could provide a more in-depth understanding of the unique experiences of politically involved students. For example, this study does not illustrate why students choose to get involved in political organizations. Rohs and Langone (2007) suggest that integrating such qualitative data with self-reported, quantitative-based measures could "help to provide a more complete assessment of change" (p. 158). Additionally, organizational context, focus, and structure were unknown in this study. Because students of color were underrepresented in political organizations despite many having an activist and social justice orientation, future research should use qualitative research to examine the students' perceptions of political organizations as well as the conceptions of leadership embedded within the organizations. Addressing these organizations beyond what is assumed about them, such as the focus, mission, and goals, can help understand better the organizations and how students can best learn, develop, and apply leadership skills from their involvement in them.

Further, the concept of leadership presents investigators the opportunity to examine it under various conditions and contexts such as different college environments and different student populations. As a social construct, leadership can be understood through observations made about specific interactions within a society; it is defined differently in each social circumstance (A. W. Astin & Astin, 2000). Leadership is a "property of culture and reflects the values – both stated and operating – of a specific society" (Astin & Astin, 2000, p. v). In fact, the study of leadership in higher education in a given social context has emerged within the last decade, "open[ing] up new possibilities for transformation and change" (A. W. Astin & Astin, 2000, p. v). Qualitative methodology is particularly useful for understanding contextual factors, revealing apparent similarities and differences within institutions, and collecting knowledge of best practices. If past research has indicated that certain institutions do a better job at educating for leadership (Colby et al., 2007), then understanding the role of culture and context and "what works" within those institutions would be important research. Qualitative approaches such as case study, ethnography, focus groups, or in-depth interviews may be appropriate for pursuing these kinds of research aims (Atkinson, Coffey, & Delamont, 2003; Berg, 2004; Creswell, 2009; Denzin & Lincoln, 2000; Huberman & Miles, 2002).

Summary of the Research

King (1997) asserts, "Helping students develop the integrity and strength of character that prepare them for leadership may be one the most challenging–and important–goals of higher education" (p. 87). This research reinforces the historic and important role of colleges and universities in educating a socially responsible and

engaged citizenry, which is at the core of higher education's civic and public mission. As social responsibility is considered an essential educational outcome of a college education, it is a critical challenge for colleges and universities to help students develop it. The present research demonstrates that co-curricular involvement is an important educational experience for fostering students' socially responsible leadership development. Involvement in both political and non-political organizations is even more important for increasing students' leadership development, even more beneficial than involvement in political organizations alone. Taken together, students' involvement experiences before and during college contribute the most to students' leadership development during college. Additionally, this study provides further evidence that political involvement and the leadership development process differs among various groups of students, particularly among female students, students of color, and first-year students. While this study sheds light on important intersections between student characteristics, political involvement, and leadership development, future research should continue building the knowledge base related to student development and political involvement in higher education, so that colleges and universities can best prepare students with the skills for meeting the demands and challenges of the 21st century. After all, college students have "the greatest potential to shape the nation's future" (Zimmerman-Oster & Burkhardt, 2000, p. 24).

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